

AUTOMOTIVE
STANDARD
PRODUCTS
2025/2026

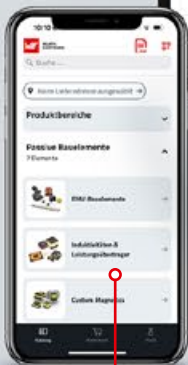
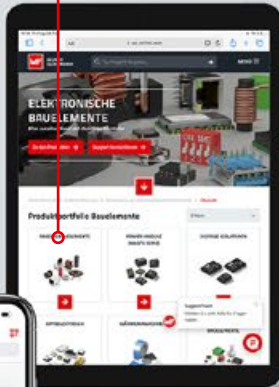
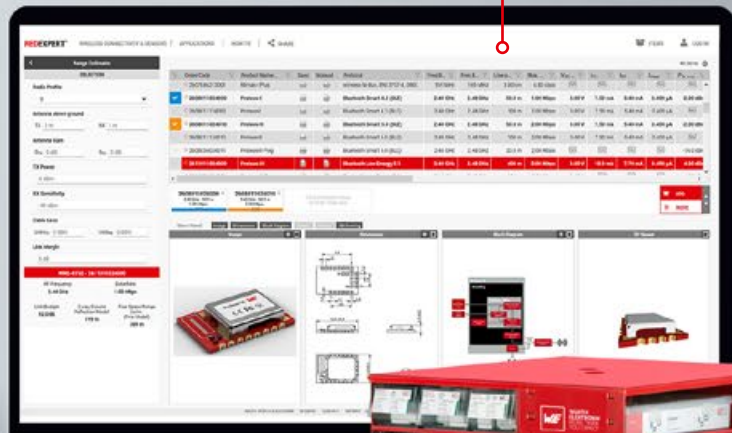


WÜRTH ELEKTRONIK MORE THAN YOU EXPECT

EASY AND FAST ACCESS TO ALL INFORMATION

REDEXPERT

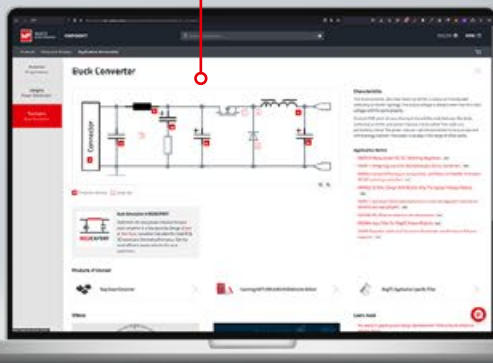
WEBSITE



IOS APP



APPLICATIONS & INDUSTRIES GUIDES



EMC TEST
LAB RACKS

REFERENCE
GUIDES



Practical application & design notes:
www.we-online.com/apnotes



Product informations download:
www.we-online.com/produktinformationen



Application Guide
www.we-online.com/applicationguide



Download the **Catalogue App** of
Würth Elektronik to access all product
information on your mobile device:
www.we-online.com/app












REDEXPERT
www.we-online.com/redexpert

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Information in this publication is subject to change. The process of continually improving our product range leads to changes in content. For new designs please refer to the latest data sheets on www.we-online.com or contact our technical field staff.

THE WÜRTH ELEKTRONIK

eiSos GROUP



THE WÜRTH ELEKTRONIK GROUP

Employees: 7,900*
Sales: 1.24 Bn. Euro*
*2023

WÜRTH ELEKTRONIK eiSos GROUP



PRINTED CIRCUIT
BOARDS

INTELLIGENT
POWER AND
CONTROL SYSTEMS

Passive
Components



Power Modules &
Optoelectronics



Electromechanical
Components



Automotive &
eMobility



Wireless Connectivity &
Sensors



GLOBALLY AVAILABLE. LOCALLY PRESENT.



13
Warehouses



15
Quality & Design Centers



16
Production plants



50
Countries



MORE THAN YOU EXPECT: SUPPORT THROUGHOUT THE WHOLE PRODUCT LIFE CYCLE

CONCEPT

- Local support through our technical sales team and field application engineers in 50 countries
- Design-in support
- Reference designs of leading IC manufacturers
- Seminars, webinars, inhouse seminars and video-on-demands

DESIGN & DEVELOPMENT

- Technical consulting through our technical sales team and field application engineers
- Free samples within 24 – 48 h
- Online Platform **REDEXPERT**
- Application Notes
- Design Kits with free refill
- Component libraries for CAD and CAE tools
- Application handbooks as hardcopy & e-book

PROTOTYPING & TESTING

- No MOQ
- EMC test lab racks
- EMC lab search engine

PRODUCTION & AFTER SALES SERVICE

- All catalogue products available ex stock
- Logistic concepts
- Longtime availability of components
- Smart PCN
- Customer API
- Customer platform MyWE



MyWE

With MyWE, you have an overview of all processes, 24 hours a day, 7 days a week. You can quickly and easily access all relevant data, request inquiries and place orders. Thanks to the clear design and your customizable dashboard, you can reach your destination with just a few clicks.

Shipment Tracking

- Overview of current and delivered shipments
- Information and all documents for download

Order Processing

- Overview of all inquiries, offers and orders
- Request inquiries and place orders

Product Overview

- Overview of all parts that have already been ordered
- Comprehensive information and documents on all products
- Personal favorites list

Knowledge Panel

- Links to interesting content and services from Würth Elektronik, such as events, design tools, application notes and much more!



**LET'S CONNECT
WITH MYWE**

STAY AHEAD CONNECT VIA API



API

With an API (Application Programmable Interface) two software systems can be connected with each other. We have developed a REST API for our customers, which enables a flexible connection to their systems. For example, you can display the current and future availability, article data and data sheets of our components live in your ERP system.

Simplified processes

You can see the information you need at any time and always keep an overview. We develop an individual solution for you.

Optimized planning

In addition to the current stocks, you can also see when further goods will arrive and thus optimize your planning.

Low effort

With our API documentation and our in-house experts, your IT or connection service provider can connect the interface quickly and easily.

High flexibility and individual configuration

You decide where and which of the available information you want to display.

BENEFITS FOR **AUTOMOTIVE PRODUCTS**

1. Optimized construction

Internal structures of automotive approved products are very different from conventional ones. For example, the wire connection between coil wire and component is not made with a conventional solder joint, but by means of a welding process. Another example is ferrite sleeves; compared with the conventional industry article, the surface form is optimized and this considerably simplifies the routing of lines.

2. AEC-Q200 qualification

All products are qualified in accordance with the AEC-Q200. The Automotive Electronics Council Qualification (AECQ) does not reflect the qualification standard of the automotive industry in all cases, but describes product quality very precisely only by means of a variety of reliability checks.

3. Higher level of automation

Automation vs. partial automation/manual process

Increasing the degree of automation in the manufacturing process changes the variance of process parameters positively by eliminating the influence of the operator. This also ensures even more effective process controlling.

4. High process capability level

Process capability is determined by means of familiar statistics and describes the stability of a manufacturing process. A statistical evaluation by itself will not make a manufacturing process more stable, however.

5. Additional quality controls

Additional quality controls are geared specifically to the familiar, critical quality features of the individual products. These features are directly monitored, documented and qualified according to their requirements in the appropriate manufacturing step.

6. Production on strictly defined production lines

Additional quality controls can be carried out efficiently only if they are used for previously evaluated production lines. Even two identical manufacturing processes on different production lines can have different results. So process-based influences are difficult to generalize, which is why we specially select and monitor the production lines.

7. Extended temperature range

The market requires tough products. So we have the target to extend the temperature range to $-55\text{ °C} / +150\text{ °C}$. It is shown by the following sign:

Temperature range up to $+150\text{ °C}$

TOTAL QUALITY MANAGEMENT

Quality and Laboratories

1. Quality Centers Worldwide



Waldenburg, Germany



Shenzhen, China



Watertown, USA



Lyon, France

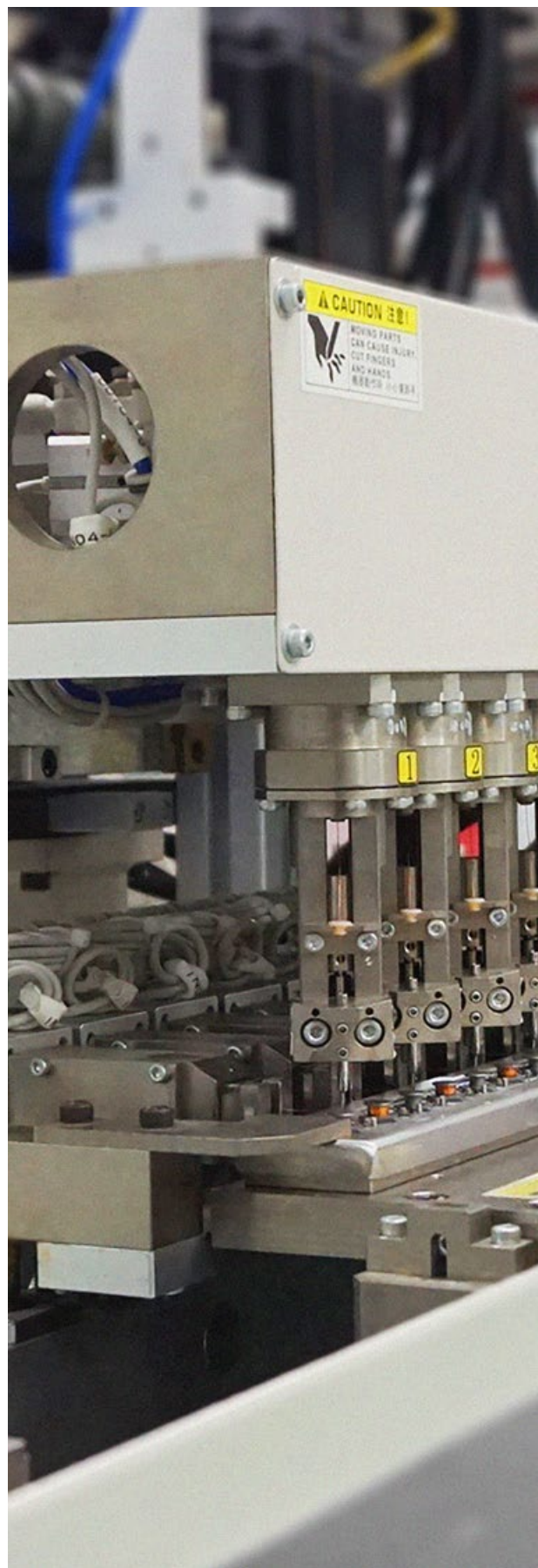
2. Test Equipment

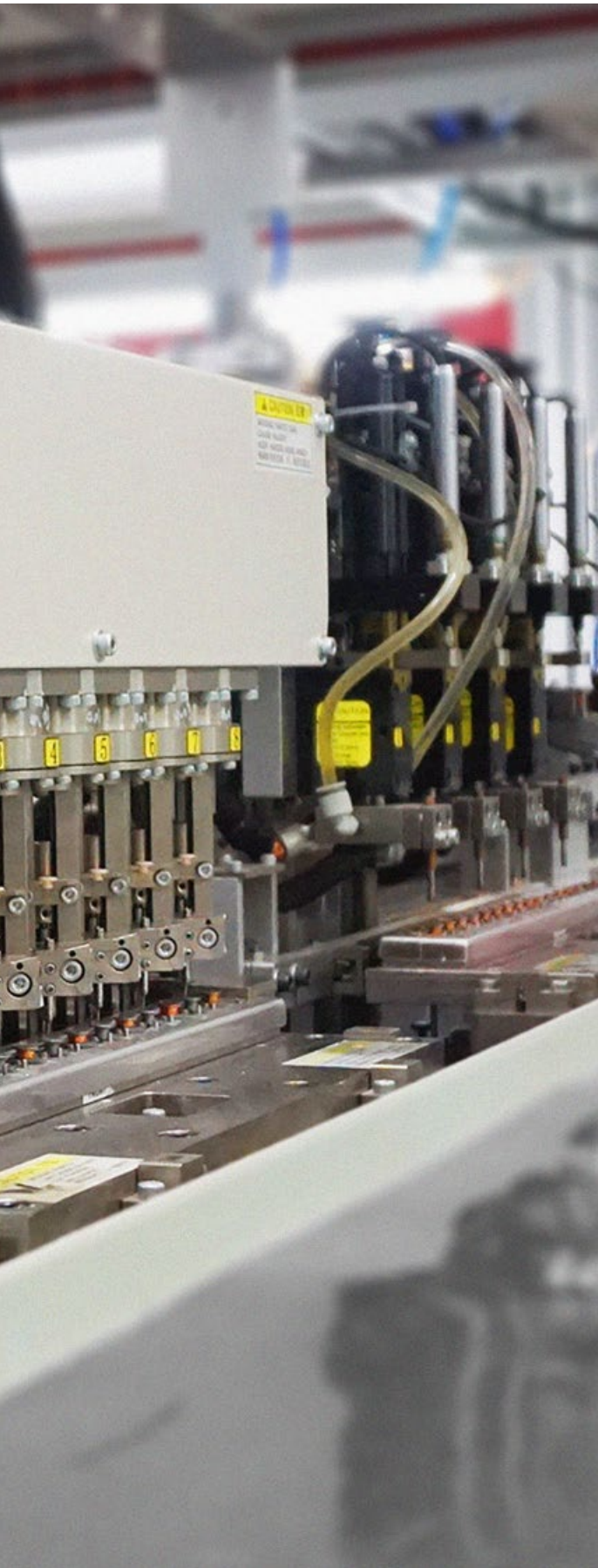
- Analysis Lab – Microscopic analysis, thermal strength, wetting balance, RoHS reflow parts, XRF X-Ray and many more
- Measurement Lab – Precision LCRs, ESD testers, RF impedance/material analyzer, network/spectrum/impedance analyzers and many more
- Environmental Lab – Shock and vibration, temperature cycling, Thermal shock, Steam aging and many more
- Process Lab – Reflow, wave and vapor phase soldering, pick and placing simulations, washing process, tape- and reeling and many more
- EMC Lab - Fully anechoic chamber and shielded rooms, radiated emission measurements, radiated immunity tests, Automotive monopole testing, electrical voltage tests, burst and surge test, ESD test

3. Process and Product Quality

We work with the common quality methods like:

- Quality system with PDCA cycle
- Risk prevention with FMEA process
- Quality planning with APQP & PPAP
- Complaint handling with 8D method
- Change management with PCN / PTN
- FiFo with lot no & date code traceability
- Functional component and product qualifications
- IATF 16949:2016
- Feasibility
- AEC-Q200





Quality and Laboratories

4. Material Compliance

As one of the leading manufacturers of electronic components worldwide, we are fully conscious of our responsibility for the environment and its protection. That's why we comply with the following laws regarding material compliance:

- RoHS directive 2011/65EU and 2015/863 / China RoHS
- REACh-regulation no 1907/2006
- Conflict Mineral Reporting [CMRT]
- End-of Life Vehicles directive 200/53EC and 2005/64/EC
- California Proposition 65
- Persistent Organic Pollutants (POPs)
- Ozone Depleting Substances (ODS)
- IMDS / CAMDS

We continuously work on the reduction of RoHS Exemptions and REACh SVHC.

We also test our products according the two common Halogen Free standards and it's our target to reduce halogens to a minimum. Halogen free products are labeled with one or both of the following standards:

- Halogen Free JEDEC JS 709B
- Halogen Free IEC 61249-2-21



RoHS
COMPLIANT



REACh
COMPLIANT

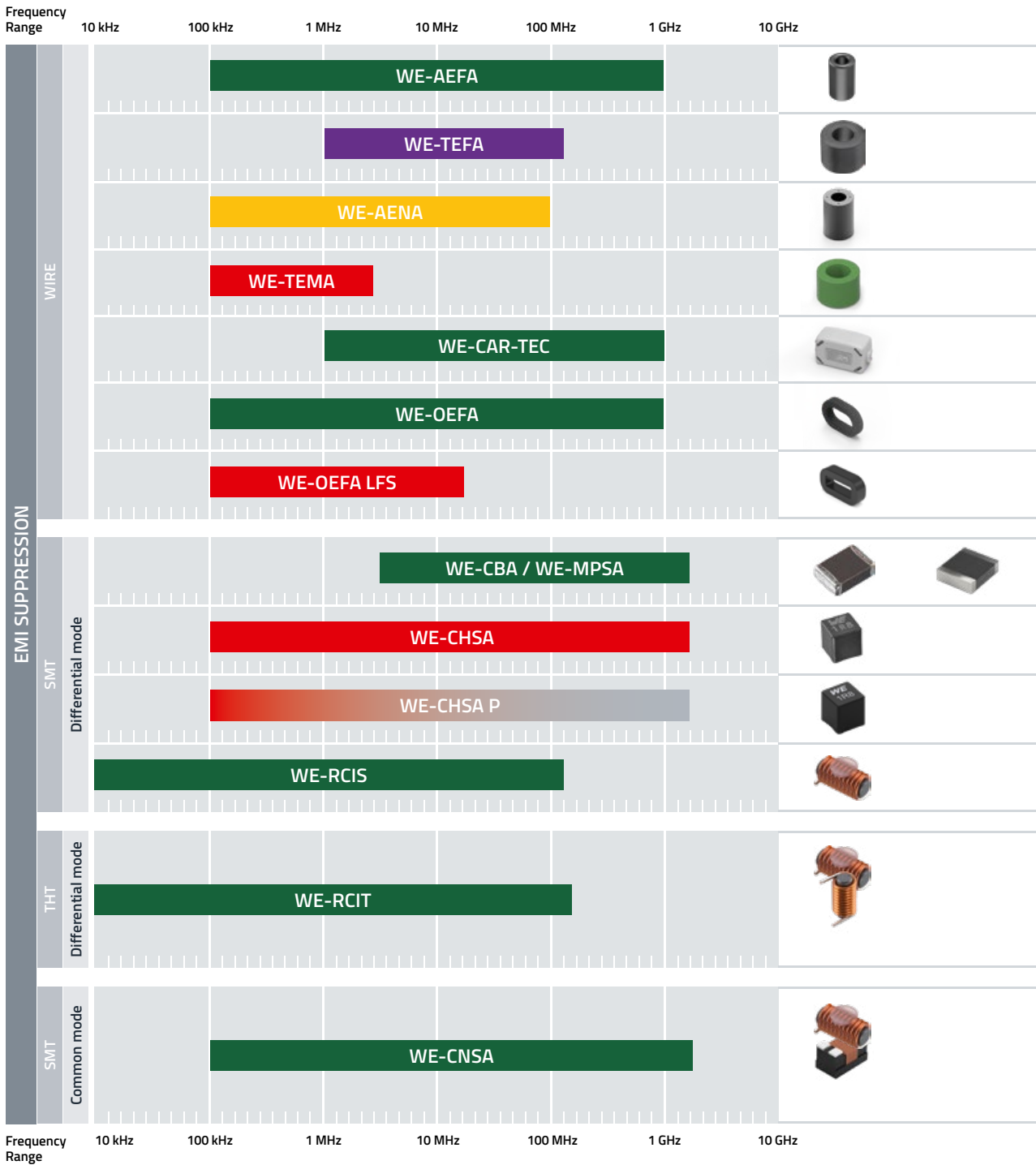


HALOGEN
FREE

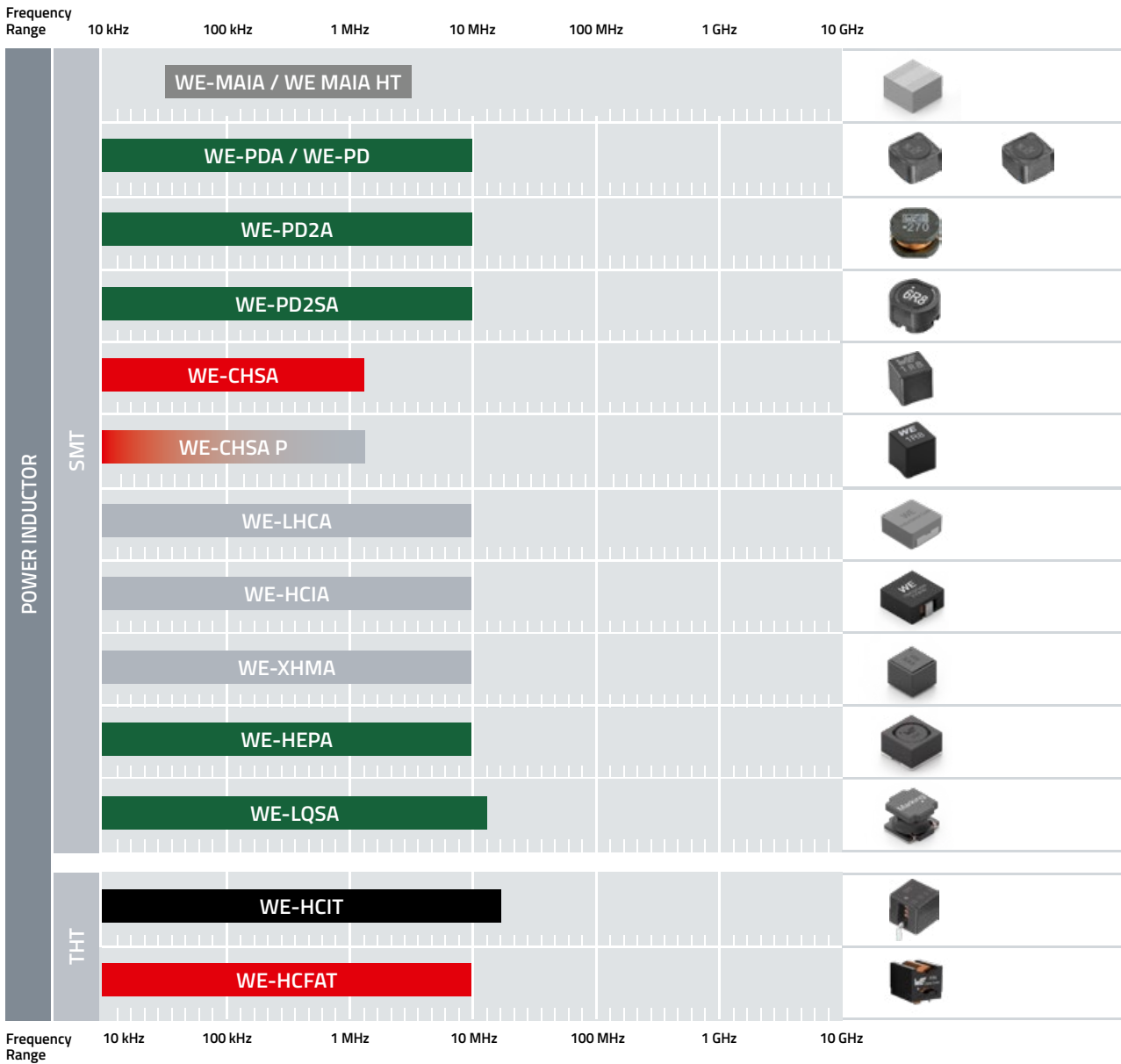


AUTOMOTIVE
APPROVED

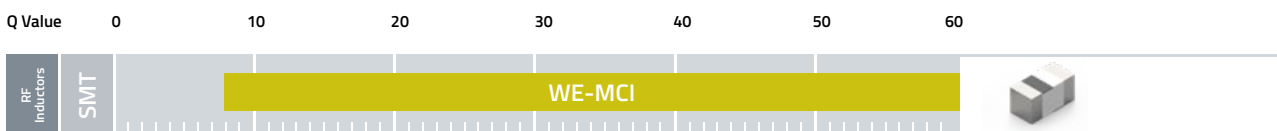
FILTER APPLICATIONS



STORAGE APPLICATIONS



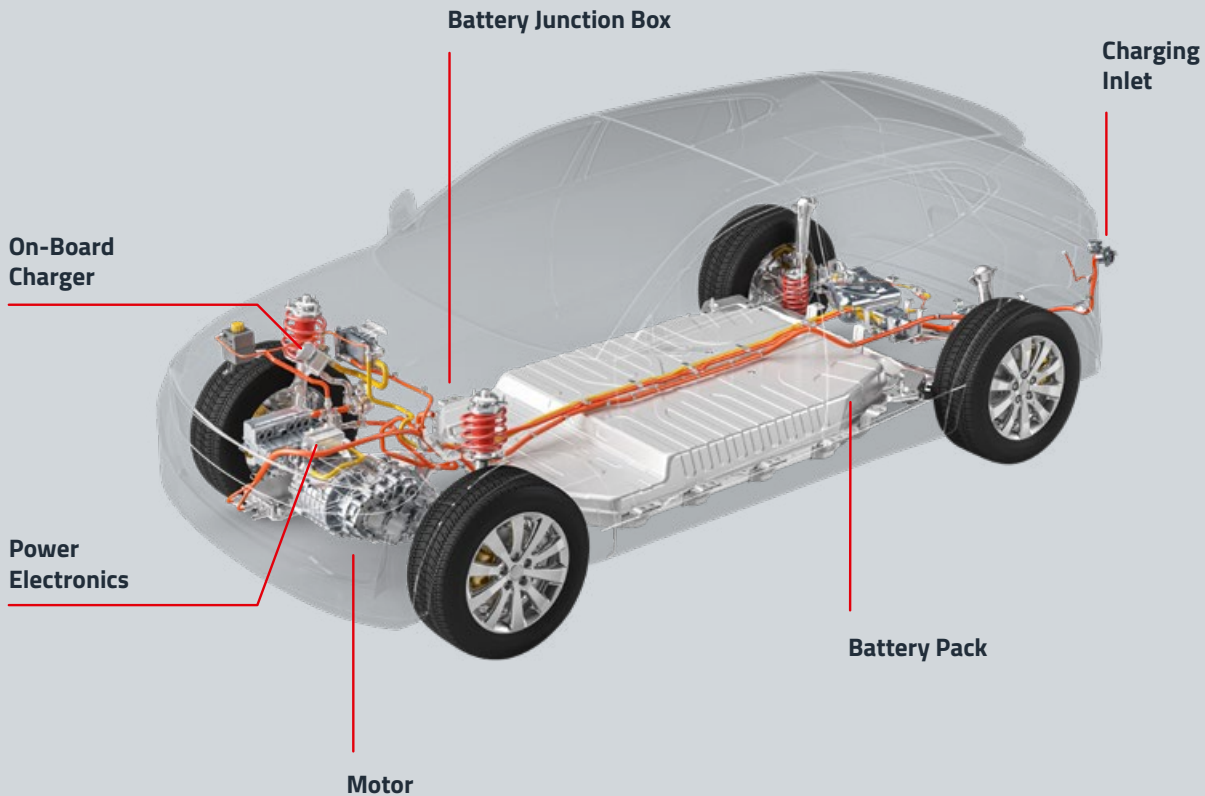
RF INDUCTORS



Fe	Iron Powder
Metal Alloy	Metal Alloy
MnZn	Manganese-Zinc
NiZn	Nickel-Zinc
Ceramic	Ceramic

EV EMI SUPPRESSION

EMC NOISE CANCELLATION FOR NEW EV & HEV APPLICATIONS



The rising electrification of motor vehicles is inevitably accompanied by an increase in electromagnetic interference. The use of cable ferrites can significantly reduce these in electric vehicles, whether interference signals on lines or electromagnetic field coupling effects. High-performance inductive materials in cable ferrites significantly improve EMC performance.

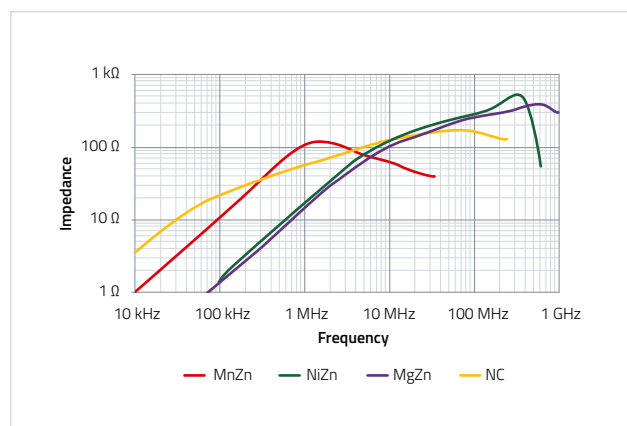
Standard ferrite cable core suppression elements in axial as well in toroidal form are suitable for a wide range of applications with medium and high frequencies. For higher frequencies, these contain a magnesium component. A very wide frequency range is covered by cable ferrites with a new nanocrystalline material (NC).

Applications matrix

Electronic cable ferrites are designed to work in all different frequency ranges with best attenuation.

It is essential for the following automotive applications:

- In EMI suppression against inverter spikes
- Attenuate EMI noise induced by the rotor of the electric motor
- Minimize NVH (noise vibrations harshness) in the EMC spectrum at the powertrain
- Special EMI suppression for the junction box interconnections





EMI suppression for medium-high freq. range

- WE-AEFA ring core is an EMC cable ferrite suppressor in an axial as well in toroidal form, designed for many kinds of applications
- WE-OEFA Oval Cable Ferrite for Automotive applications for EMC noise suppression.



EMI suppression for a wide-band freq. range

- WE-AENA cable ferrites with the latest NC (nanocrystalline) core material technology to provide noise suppression across a very wide frequency range
- Available in many different sizes



EMI suppression for medium-low freq. range

- WE-TEMA ring core is an EMC cable ferrite suppressor specially designed for the medium frequency range with very high suppression
- WE-OEFA LFS Oval cable ferrite used for example for busbars or charging systems in automotive applications for EMI suppression at low frequencies.



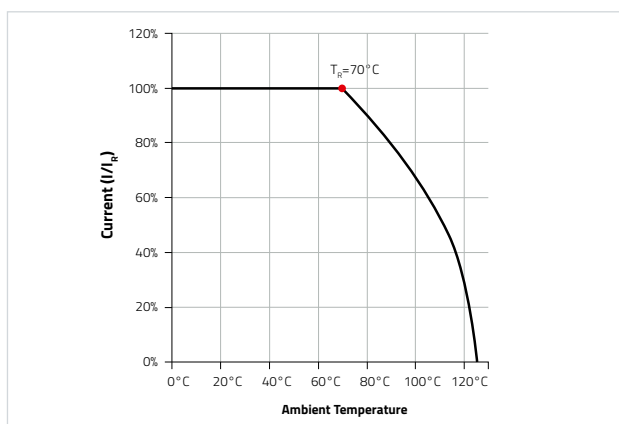
EMI suppression for higher freq. range

- WE-TEFA ring core is an EMC cable ferrite suppressor with a component of Mg
- The Impedance supports a higher frequency than a standard type

WE COMPONENTS: TEMPERATURE VS. CURRENT DERATING

Our components can of course also be used at higher temperatures. However, the component specification must always be observed. We provide you with derating curves for easy implementation. This allows you to quickly and easily define the respective operating point in accordance with the component specification in your application.

Derating Curve – Interpretation



Rated Current	@ 70 °C	I _R	0.9	A	max.
Operating Temperature	-40 °C up to +125 °C				
Temperature Rise < 55K					

$\Delta T = T_{max} - T_R$
 Max. temperature allowed T_{max}

Example of use: The maximum ambient temperature at maximum current is 70 °C . At a higher ambient temperature the current capabilities sink. For an ambient temperature of 90 °C the current should not be over 80% of IR (0.9 Amps).

TOROIDAL EMI SUPPRESSION FERRITE



Characteristics

- Operating temperature: -50 °C up to +150 °C
- Core made of MnZn, a good option for EMI suppression
- UL coated
- High permeability
- AEC-Q200

Applications

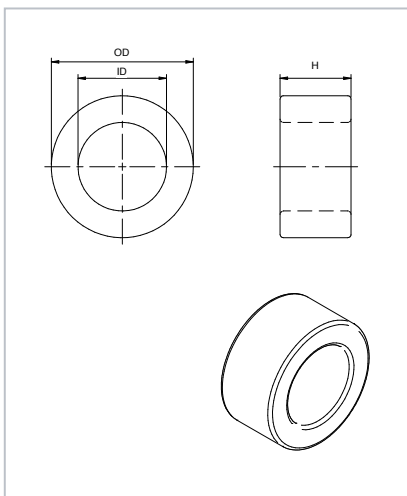
- Automotive wiring harness
- Data and signal lines
- Multimedia cable interfaces

Temperature range
up to +150 °C

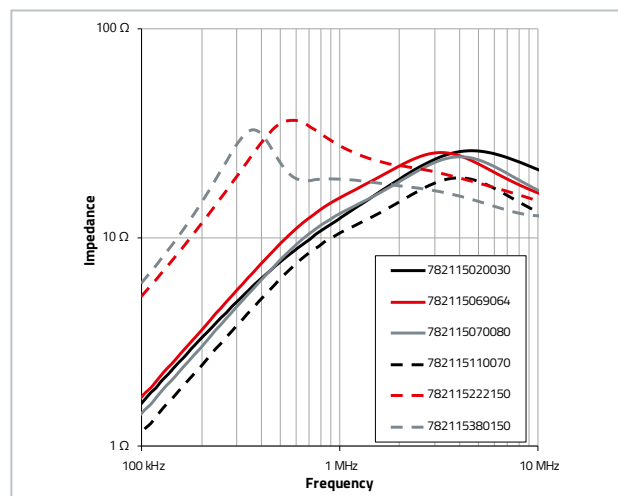
Order Code	Ø Cable (mm)	Z @ 100 kHz 1 turn (Ω)	Z @ 1 MHz 1 turn (Ω)	Ø ID (mm)	Ø OD (mm)	H (mm)
782115020030	2.1	1.5	12	2.7	6.3	3.3
782115069064	7.02	2.22	15.5	7.62	13	6.65
782115070080	9.1	2.03	13	9.7	14.3	8.3
782115110070	11.1	1.51	10.5	11.7	16.3	7.3
782115222150	20.8	5.15	–	21.6	38.4	14.4
782115380150	38.1	5.88	–	39.4	80.6	15.6

Ø Cable: Cable Diameter; Z @ 25 MHz 1 turn: Impedance @ 25 MHz 1 turn; Z @ 100 MHz 1 turn: Impedance @ 100 MHz 1 turn; Ø ID: Inner Diameter; Ø OD: Outer Diameter; H: Height

Dimensions: (mm)



Impedance vs. Frequency



WE-TEFA

TOROIDAL EMI SUPPRESSION FERRITE



Characteristics

- Operating temperature: -55 °C up to +140 °C
- Ferrite core made of MgZn, a material which works in a wider frequency range than NiZn
- Many different sizes for the best possible interference suppression in automotive applications
- AEC-Q200

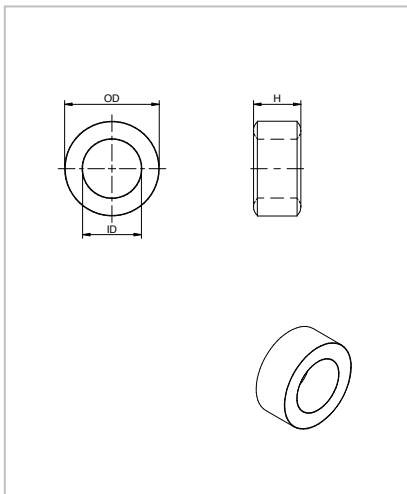
Applications

- In general for: Wires, coaxial cables, wire-wrapping cables, multiconductor wires
- Data and signal lines
- On board power supply line
- Multimedia cable interfaces
- Various, other cable interfaces

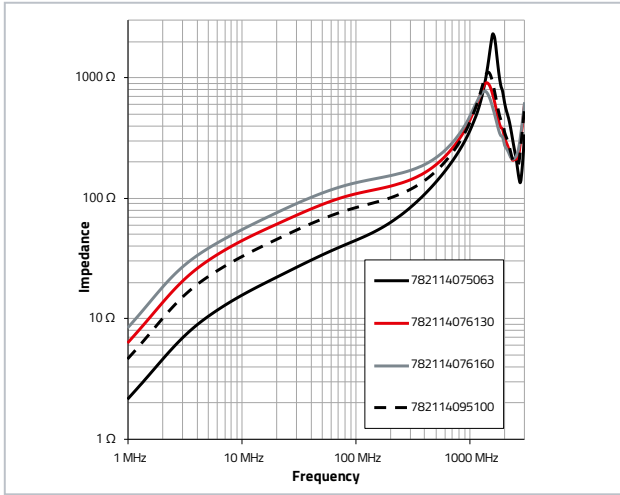
Order Code	∅ Cable (mm)	Z @ 25 MHz 1 turn (Ω)	Z @ 100 MHz 1 turn (Ω)	∅ ID (mm)	∅ OD (mm)	H (mm)
782114075063	7.5	22	42	7.9	12.7	6.35
782114076130	7.6	67	107	8	16.5	13.00
782114076160	7.6	83	131	8	16.5	16.00
782114095100	9.5	50	85	10	20	10.00
782114096080	9.6	22	40	10	14	8.00
782114133064	13.3	25	45	13.8	22.5	6.40
782114155130	15.5	53	92	16	28	13.00
782114155200	15.5	74	125	16	28	20.00

∅ Cable: Cable Diameter; Z @ 25 MHz 1 turn: Impedance @ 25 MHz 1 turn; Z @ 100 MHz 1 turn: Impedance @ 100 MHz 1 turn; ∅ ID: Inner Diameter; ∅ OD: Outer Diameter; H: Height

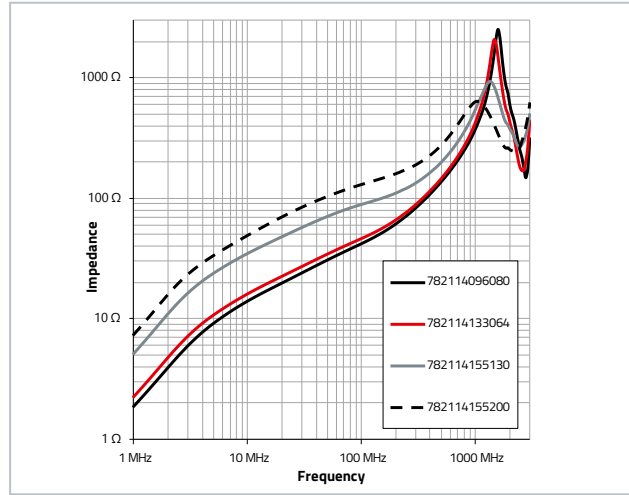
Dimensions: (mm)



Impedance vs. Frequency



Impedance vs. Frequency



AXIAL EMI SUPPRESSION FERRITE



Characteristics

- Operating temperature: -55 °C up to +150 °C
- Ferrite core made of NiZn, a material which works in a wide frequency range
- Many different types for the best possible interference suppression
- AEC-Q200

Applications

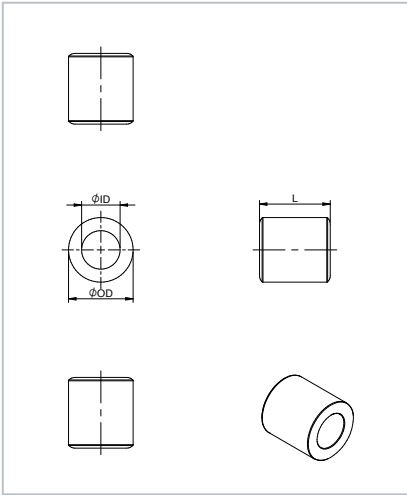
- In general for: wires, coaxial cables, wire-wrapping cables, multiconductor wires
- Data and signal lines
- On board power supply line
- Multimedia cable interfaces
- Various, other cable interfaces

Temperature range
up to +150 °C

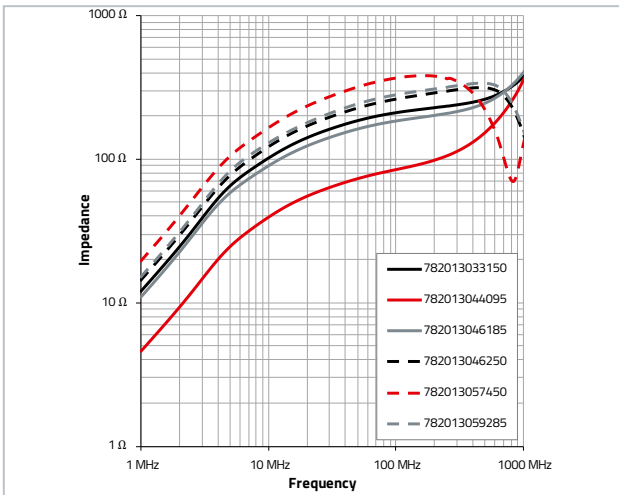
Order Code	∅ Cable (mm)	Z @ 25 MHz 1 turn (Ω)	Z @ 100 MHz 1 turn (Ω)	∅ ID (mm)	∅ OD (mm)	H (mm)
782013033150	3.3	150	205	3.55	12	15
782013044095	4.4	60	84	4.75	9.5	9.5
782013046185	4.6	135	186	5	11.5	18.5
782013046250	4.6	185	255	5	11.5	25
782013057450	5.7	255	370	6.1	12	45
782013059285	5.9	195	270	6.3	14	28.5
782013068250	6.8	150	210	7.2	14	25
782013069155	6.9	70	100	7.3	12	15.5
782013069285	6.9	190	270	7.3	15.5	28.5
782013076285	7.6	170	240	8	16	28.5
782013076508	7.6	325	460	8	16	50.8
782013079285	7.9	140	200	8.2	14	28.5
782013086280	8.6	140	205	9	16	28
782013091285	9.7	150	220	9.5	17.5	28.5
782013100280	10	100	150	10.5	15.5	28
782013110508	11	235	345	11.5	19	50.8
782013125280	12.5	95	150	13	19	28
782013125285	12.5	170	240	13	26	28.5
782013150285	15	130	190	15.5	26	28.5
782013410400	40	152	235	41.5	65	40

∅ Cable: Cable Diameter; Z @ 25 MHz 1 turn: Impedance @ 25 MHz 1 turn; Z @ 100 MHz 1 turn: Impedance @ 100 MHz 1 turn; ∅ ID: Inner Diameter; ∅ OD: Outer Diameter; H: Height

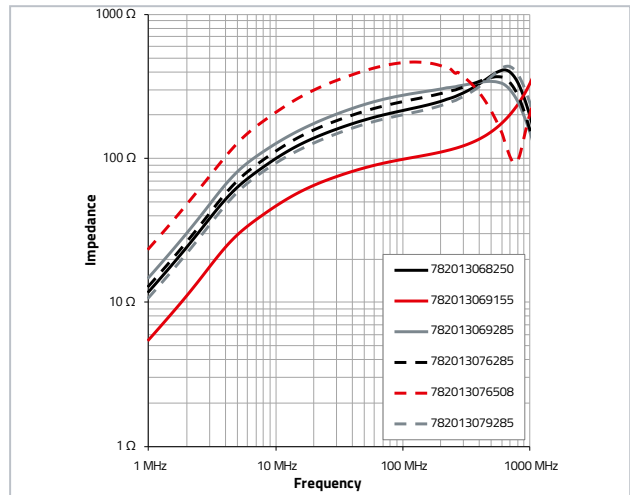
Dimensions: (mm)



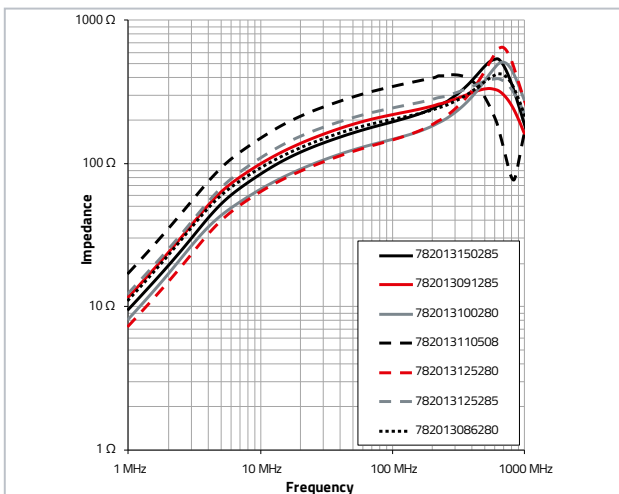
Impedance vs. Frequency



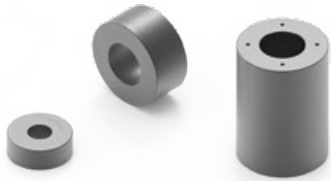
Impedance vs. Frequency



Impedance vs. Frequency



AXIAL EMI NANOCRYSTALLINE SUPPRESSION FERRITE



Characteristics

- Operating temperature: -40 °C up to +125 °C
- Core made of Nanocrystalline, a material which works in a wider frequency range than NiZn
- Many different types for the best possible interference suppression in automotive applications
- AEC-Q200

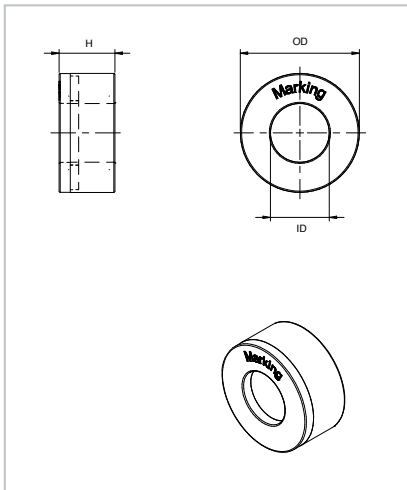
Applications

- In general for: wires, coaxial cables, wire-wrapping cables, multiconductor wires
- Data and signal lines
- On board power supply line
- Multimedia cable interfaces

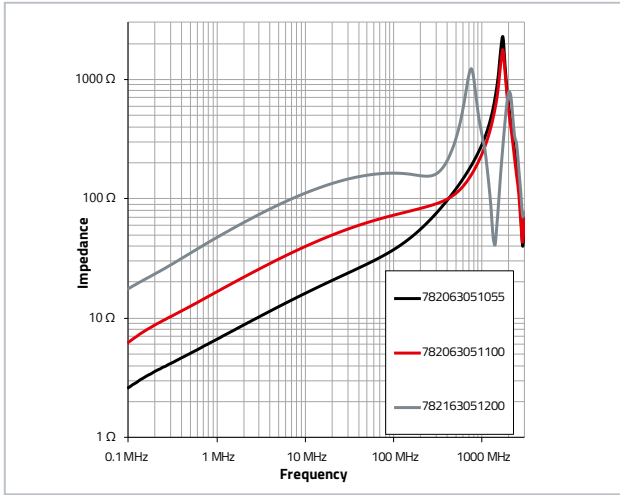
Order Code	Ø Cable (mm)	Z @ 1 MHz 1 turn (Ω)	Ø ID (mm)	Ø OD (mm)	H (mm)
782063051055	5.2	7	5.5	15.3	5.5
782063051100	5.2	16	5.5	15.3	10
782163051200	5.2	45	5.5	15.3	20
782063101055	10.2	6.5	10.5	21.3	5.5
782063101100	10.2	15.6	10.5	21.3	10
782063101200	10.2	34	10.5	21.3	20
782163101300	10.2	60	10.5	21.3	30
782063151055	15.2	6	15.5	28.3	5.5
782063151100	15.2	14	15.5	28.3	10
782063151200	15.2	39	15.5	28.3	20
782163151300	15.2	52	15.5	28.3	30

Ø Cable: Cable Diameter; Z @ 1 MHz 1 turn: Impedance @ 1 MHz 1 turn; Ø ID: Inner Diameter; Ø OD: Outer Diameter; H: Height

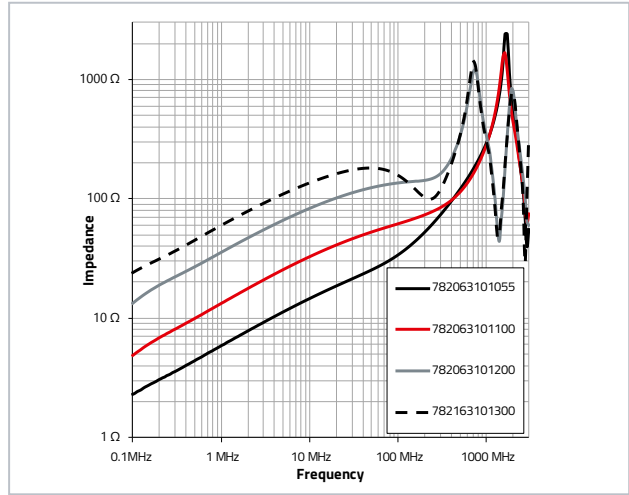
Dimensions: (mm)



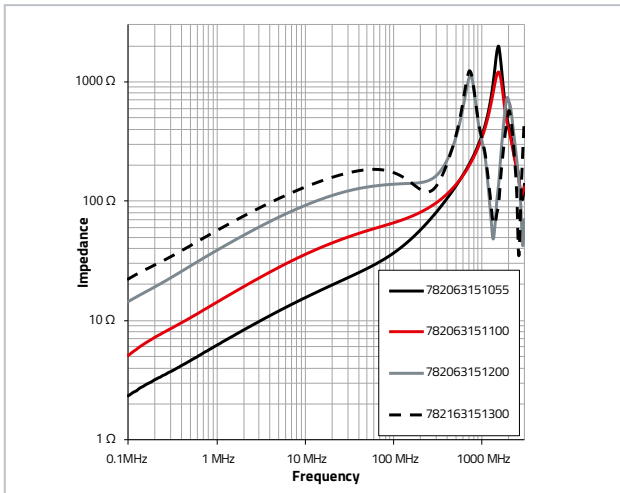
Impedance vs. Frequency



Impedance vs. Frequency



Impedance vs. Frequency



WE-CAR-TEC SNAP FERRITE



Characteristics

- Operating temperature:
-50 °C up to +105 °C
- Pre-fixing cable system facilitates the assembly process
- Cable clamping protection
- Internal security locking system with patented key technology (WE-STAR-KEY PN: 74271) prevents unauthorized removing from the cable
- One key in each packaging unit
- Classification of the plastic housing:
UL94 V0
- Core material: NiZn
- AEC-Q200

Applications

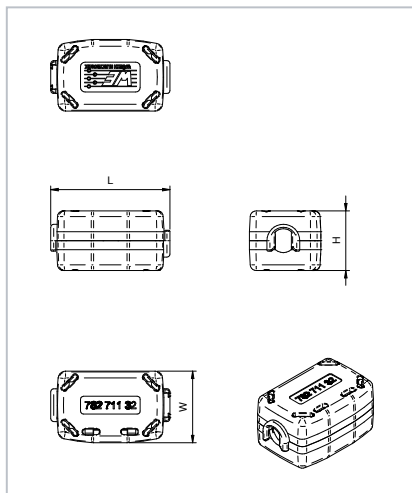
- EMC ferrite for the additional EMI suppression in the frequency area from 1 MHz up to 1 GHz
- Fastening for round cables with diameter from 3.5 mm up to 8.5 mm or if wound more turns through the ferrite
- Reusable because of the STAR-KEY technology therefore perfect for test and measuring purposes in EMC labs

With reliable flexible cable fixing,
developed in-house

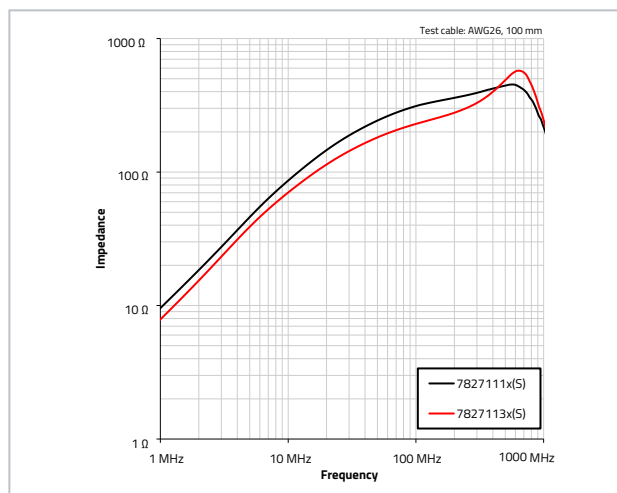
Order Code	Ø Cable (mm)	Z @ 25 MHz 1 turn (Ω)	Z @ 100 MHz 1 turn (Ω)	L (mm)	W (mm)	H (mm)	Color
78271111S	3.5 - 5	175	316	41	23.4	18	Black
78271111	3.5 - 5	175	316	41	23.4	18	Grey
78271112S	4.5 - 6	175	316	41	23.4	18	Black
78271112	4.5 - 6	175	316	41	23.4	18	Grey
78271131S	6 - 7.5	125	235	40	24	20	Black
78271131	6 - 7.5	125	235	40	24	20	Grey
78271132S	7 - 8.5	125	235	40	24	20	Black
78271132	7 - 8.5	125	235	40	24	20	Grey

Ø Cable: Cable Diameter; Z @ 25 MHz 1 turn: Impedance @ 25 MHz 1 turn; Z @ 100 MHz 1 turn: Impedance @ 100 MHz 1 turn; L: Length; W: Width; H: Height; Color: Plastic Housing Color

Dimensions: (mm)



Impedance vs. Frequency



Learn more in our online catalog
www.we-online.com/we-car-tec

WE-OEFA

OVAL EMI SUPPRESSION FERRITE



Characteristics

- Operating temperature: -55 °C up to +150 °C
- Frequency range: From 1 MHz up to 100 MHz
- Material: NiZn
- AEC-Q200 qualified

Applications

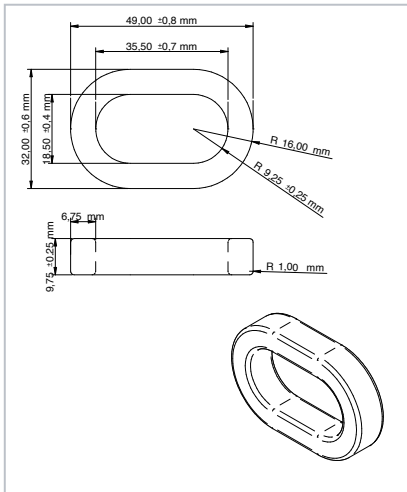
- On-Board Charger (OBC)
- Battery management system
- Inverter
- Automotive cable harness

Size change solutions are available upon request

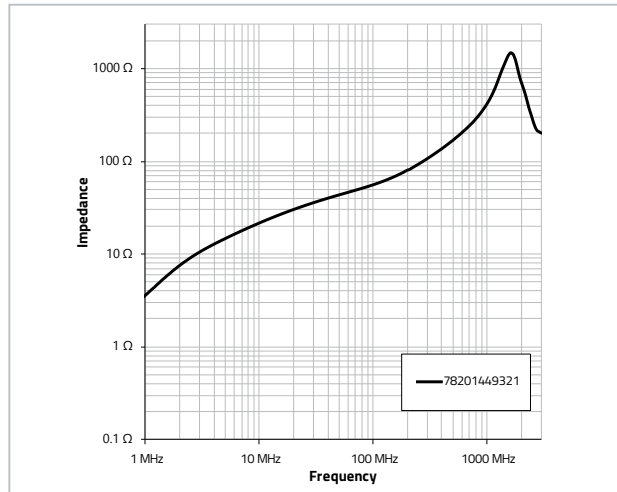
Order Code	∅ Cable	Z @ 25 MHz (Ω)	Z @ 100 MHz (Ω)	L (mm)	W (mm)	H (mm)
78201449321	31x16 mm	33	55.5	9.75	49	32

∅ Cable: Cable Diameter; Z @ 25 MHz: Impedance @ 25 MHz; Z @ 100 MHz: Impedance @ 100 MHz; L: Length; W: Width; H: Height

Dimensions: (mm)



Impedance vs. Frequency



WE-OEFA-LFS

OVAL EMI LOW FREQUENCY SUPPRESSION FERRITE



Characteristics

- Operating temperature: -40 up to +105 °C
- Core made of MnZn
- High permeability
- AEC-Q200 qualified

Applications

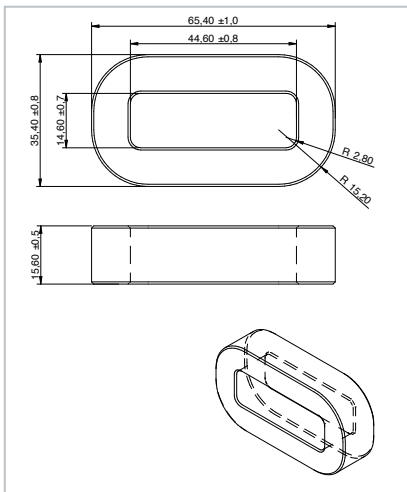
- On-Board Charger (OBC)
- Battery management system
- Inverter
- Automotive cable harness

New!

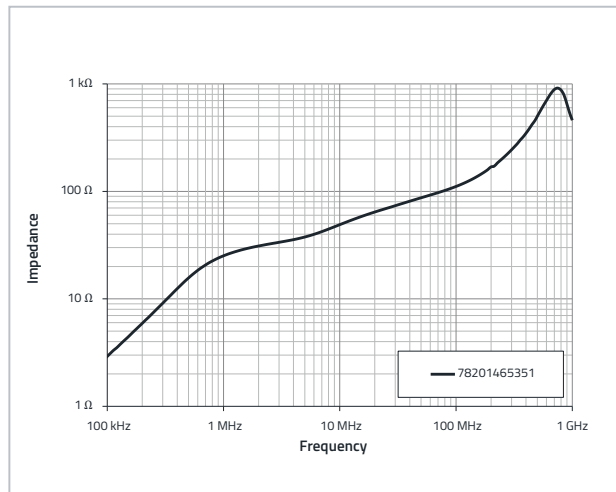
Order Code	Ø Cable	Z @ 25 MHz 1 turn (Ω)	Z @ 100 MHz 1 turn (Ω)	L (mm)	W (mm)	H (mm)
78201465351	43x13	72	112	15.6	65.4	35.4

Ø Cable: Cable Diameter; Z @ 25 MHz 1 turn: Impedance @ 25 MHz 1 turn; Z @ 100 MHz 1 turn: Impedance @ 100 MHz 1 turn; L: Length; W: Width; H: Height

Dimensions: (mm)



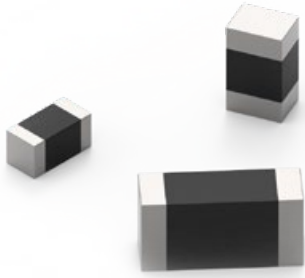
Impedance vs. Frequency



Learn more in our online catalog
www.we-online.com/we-oefa-lfs

WE-CBA

SMT EMI SUPPRESSION FERRITE BEAD



Characteristics

- Operating temperature: -55 °C up to +125 °C
- EMI suppression and noise reduction
- High rated current up to 7.5 A
- Available in 7 different sizes
- Reliable Ni-Sn electrodes
- AEC-Q200

Applications

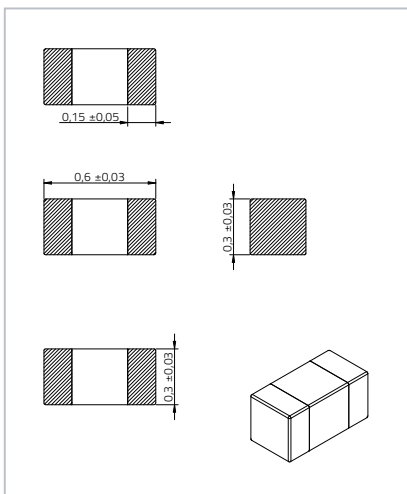
- Data line filter for any application in the infotainment system
- Applications for noise reduction at power-trains, body control and multimedia systems.
- Battery management systems, DC/DC converters, audio, etc.
- Uncoupling of distribution voltage

Size 0201

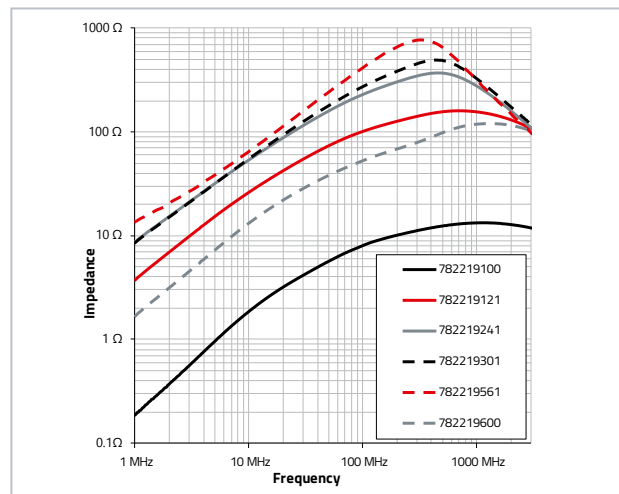
Order Code	Z @ 100 MHz (Ω)	Z _{max} (Ω)	I _R (mA)	R _{DC} (Ω)	Type
782219100	10	12.6	650	0.055	Wide Band
782219600	60	135	400	0.25	
782219121	120	259	250	0.29	
782219241	240	536	300	0.57	
782219301	300	455	400	0.61	
782219561	560	750	250	0.75	

Z @ 100 MHz: Impedance @ 100 MHz; Z_{max}: Maximum Impedance; I_R: Rated Current; R_{DC}: DC Resistance

Dimensions: (mm)



Impedance vs. Frequency

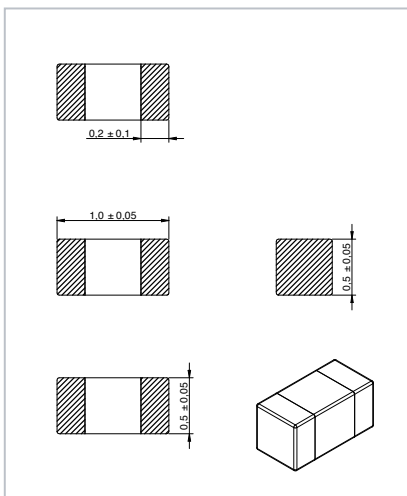


Size 0402

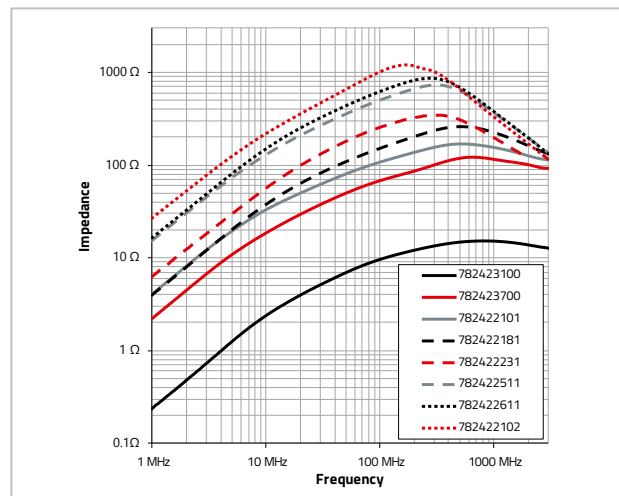
Order Code	Z @ 100 MHz (Ω)	Z _{max} (Ω)	I _R (mA)	R _{DC} (Ω)	Type
782423100	10	17	1500	0.03	High Current
782423700	70	140	1000	0.09	High Current
782422101	100	180	500	0.3	Wide Band
782429111	110	195	1200	0.09	Wide Band
782422121	120	200	500	0.2	Wide Band
782429161	160	280	1000	0.15	High Current
782422181	180	260	400	0.3	Wide Band
782422221	220	330	400	0.3	Wide Band
782422231	220	360	300	0.35	Wide Band
782422241	240	290	300	0.35	Wide Band
782429261	260	375	1000	0.15	High Current
782422301	300	400	200	0.7	Wide Band
782422331	330	640	300	0.5	Wide Band
782429461	460	1250	500	0.55	High Speed
782422511	510	730	200	0.8	Wide Band
782429601	600	720	850	0.25	Wide Band
782422601	600	800	200	0.8	Wide Band
782422611	600	900	300	0.6	Wide Band
782429102	1000	1157	480	0.48	Wide Band
782422102	1000	1200	200	1	Wide Band
782429152	1500	1533	500	0.5	Wide Band
782429182	1800	2700	210	2.1	High Frequency

Z @ 100 MHz: Impedance @ 100 MHz; Z_{max}: Maximum Impedance; I_R: Rated Current; R_{DC}: DC Resistance

Dimensions: (mm)



Impedance vs. Frequency

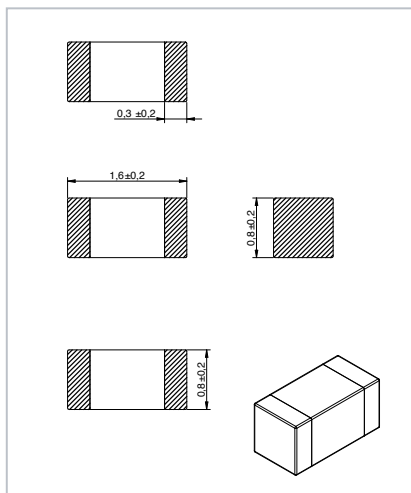


Size 0603

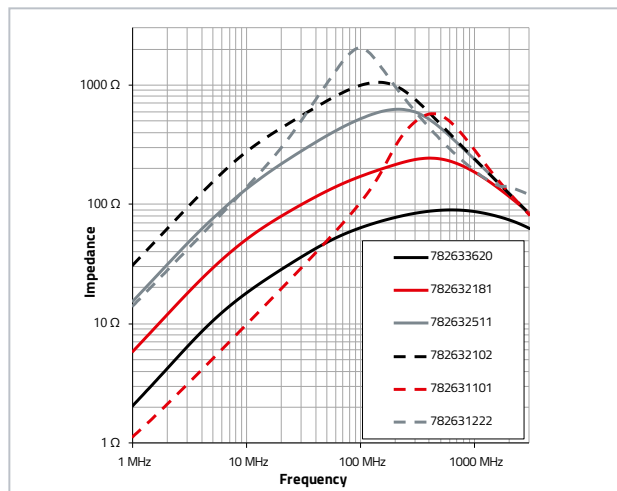
Order Code	Z @ 100 MHz (Ω)	Z _{max} (Ω)	I _R (mA)	R _{DC} (Ω)	Type
782639220	22	41	7500	0.004	High Current
782632620	62	95	500	0.15	Wide Band
782633620	62	98	2500	0.04	High Current
782631111	100	125	500	0.12	Wide Band
782631101	100	610	500	0.2	High Speed
782631141	120	180	2000	0.05	High Current
782632121	120	190	500	0.2	Wide Band
782631131	120	200	500	0.12	Wide Band
782632181	180	280	500	0.2	Wide Band
782631331	330	690	400	0.25	High Speed
782632511	510	610	300	0.35	Wide Band
782639601	600	634	1500	0.1	High Current
782633601	600	660	1000	0.2	High Current
782632102	1000	1100	800	0.5	Wide Band
782631182	1800	2300	100	0.75	High Speed
782631222	2200	2250	150	0.8	High Speed

Z @ 100 MHz: Impedance @ 100 MHz; Z_{max}: Maximum Impedance; I_R: Rated Current; R_{DC}: DC Resistance

Dimensions: (mm)



Impedance vs. Frequency

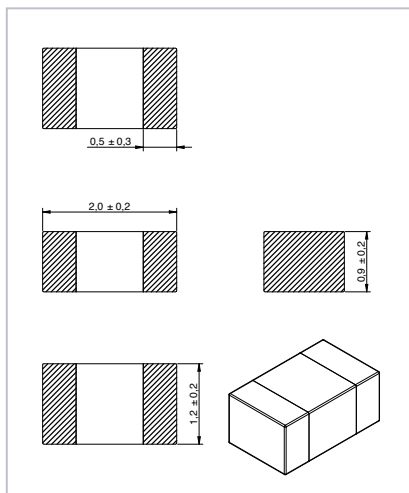


Size 0805

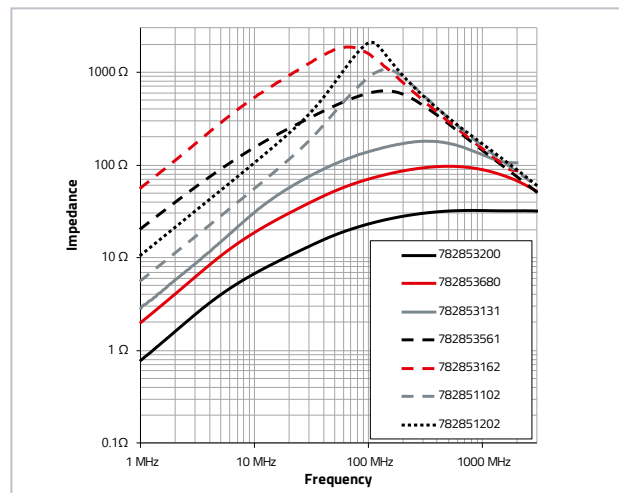
Order Code	Z @ 100 MHz (Ω)	Z _{max} (Ω)	I _R (mA)	R _{DC} (Ω)	Type
782853200	20	35	5000	0.008	High Current
782853270	27	45	4000	0.015	High Current
782853680	68	110	3000	0.025	High Current
782853910	91	105	2000	0.06	High Current
782853121	120	180	2500	0.035	High Current
782853131	120	180	3000	0.03	High Current
782853221	220	290	2000	0.05	High Current
782853231	220	330	3000	0.05	High Current
782853301	300	350	3000	0.05	High Current
782853321	320	370	2000	0.05	High Current
782853331	330	375	3000	0.05	High Current
782853401	400	500	300	0.3	Wide Band
782853561	560	600	1500	0.1	High Current
782853601	600	700	500	0.3	Wide Band
782853611	600	700	2000	0.11	High Current
782853701	700	730	1500	0.1	High Current
782853102	1000	1000	1000	0.3	High Current
782851102	1000	1100	300	0.35	High Speed
782853112	1100	1400	800	0.3	High Current
782853152	1500	1800	700	0.35	High Current
782853162	1500	1800	1000	0.3	High Current
782851212	2000	2000	400	0.42	High Speed
782851202	2200	2200	200	0.45	High Speed

Z @ 100 MHz: Impedance @ 100 MHz; Z_{max}: Maximum Impedance; I_R: Rated Current; R_{DC}: DC Resistance

Dimensions: (mm)



Impedance vs. Frequency

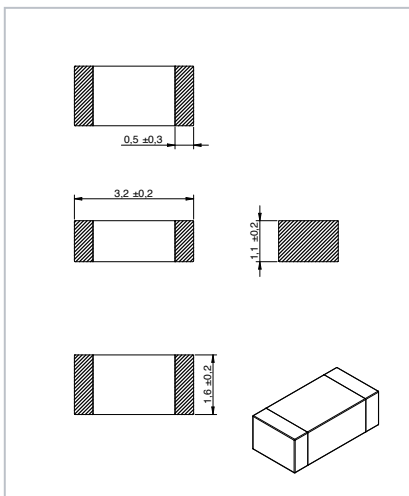


Size 1206

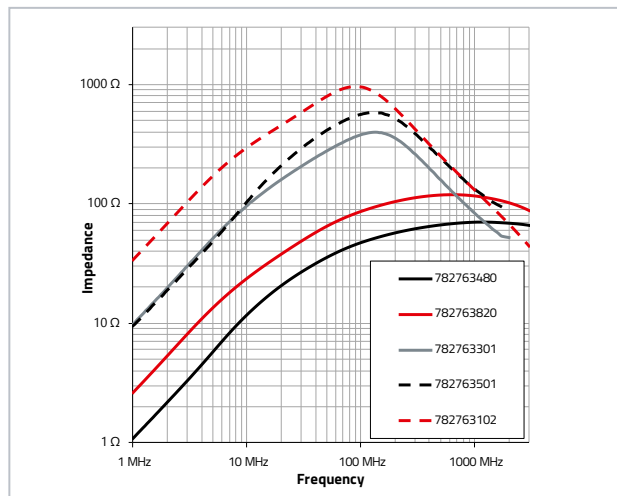
Order Code	Z @ 100 MHz (Ω)	Z _{max} (Ω)	I _R (mA)	R _{DC} (Ω)	Type
782763480	48	90	6000	0.005	High Current
782763700	70	105	500	0.15	High Speed
782763800	80	160	4000	0.02	High Current
782763820	82	130	3000	0.025	High Current
782763301	300	330	3000	0.06	High Current
782762301	300	360	500	0.1	Wide Band
782763501	500	610	2500	0.06	High Current
782763601	600	650	2500	0.048	High Current
782763621	620	620	1500	0.1	High Current
782763102	1000	1200	1000	0.3	High Current

Z @ 100 MHz: Impedance @ 100 MHz; Z_{max}: Maximum Impedance; I_R: Rated Current; R_{DC}: DC Resistance

Dimensions: (mm)



Impedance vs. Frequency

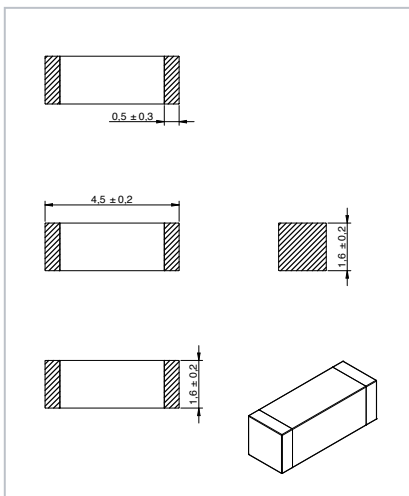


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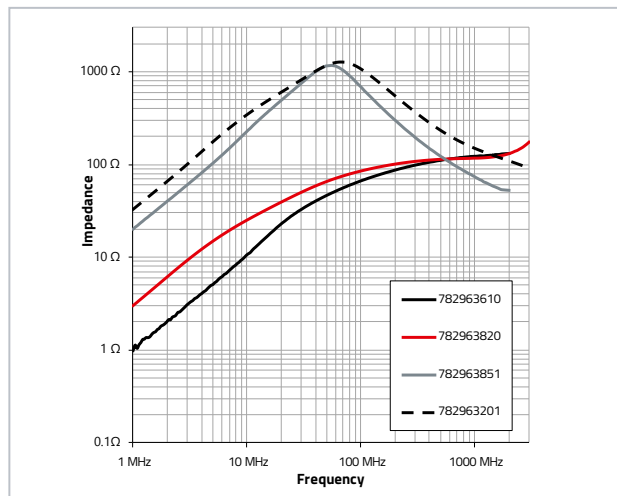
Order Code	Z @ 100 MHz (Ω)	Z _{max} (Ω)	I _R (mA)	R _{DC} (Ω)	Type
782963560	56	90	5000	0.008	High Current
782963610	60	120	6000	0.008	
782963600	60	120	6000	0.01	
782963800	80	140	3000	0.04	
782963820	82	110	3500	0.02	
782963851	850	1250	1500	0.1	
782963201	1000	1020	1500	0.09	

Z @ 100 MHz: Impedance @ 100 MHz; Z_{max}: Maximum Impedance; I_R: Rated Current; R_{DC}: DC Resistance

Dimensions: (mm)



Impedance vs. Frequency

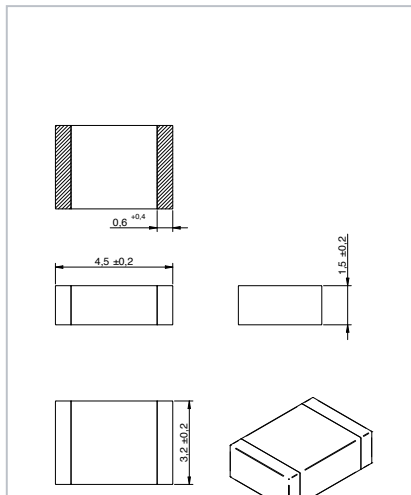


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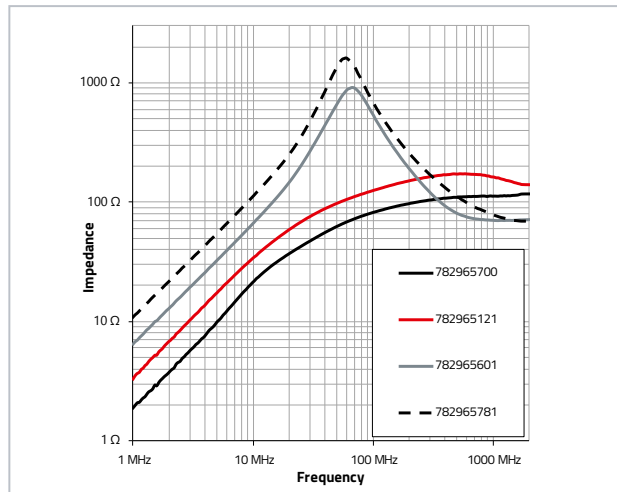
Order Code	Z @ 100 MHz (Ω)	Z _{max} (Ω)	I _R (mA)	R _{DC} (Ω)	Type
782965700	70	120	6000	0.008	High Current
782965121	120	190	3000	0.04	
782965601	600	900	3000	0.04	
782965781	780	1300	3000	0.04	

Z @ 100 MHz: Impedance @ 100 MHz; Z_{max}: Maximum Impedance; I_R: Rated Current; R_{DC}: DC Resistance

Dimensions: (mm)

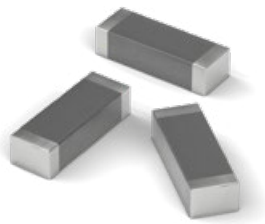


Impedance vs. Frequency



WE-MPSA

EMI MULTILAYER POWER SUPPRESSION BEAD



Characteristics

- Operating temperature: -55 °C up to +125 °C
- Specified peak current capability
- Ultra low RDC
- High rated current up to 10 A
- AEC-Q200

Applications

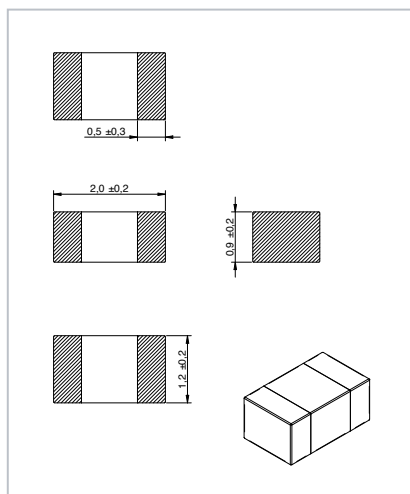
- Filter with high inrush current peaks
- Applications for noise reduction at power-trains, body control and infotainment systems
- Motor interference suppression
- Battery management systems, DC/DC converters, audio, etc.
- Broadband suppression

Size 0805

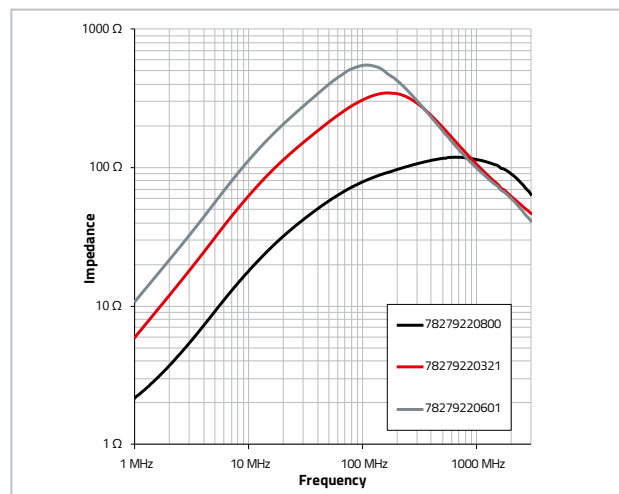
Order Code	Z @ 100 MHz (Ω)	Z _{max} (Ω)	I _R (A)	R _{DC} (mΩ)	Type
78279220800	80	120	4	18	High Current
78279220321	320	347	2.5	50	
78279220601	600	551	2.1	80	

Z @ 100 MHz: Impedance @ 100 MHz; Z_{max}: Maximum Impedance; I_R: Rated Current; Test Condition I_R: Rated Current (Test cond.); R_{DC}: DC Resistance

Dimensions: (mm)



Impedance vs. Frequency

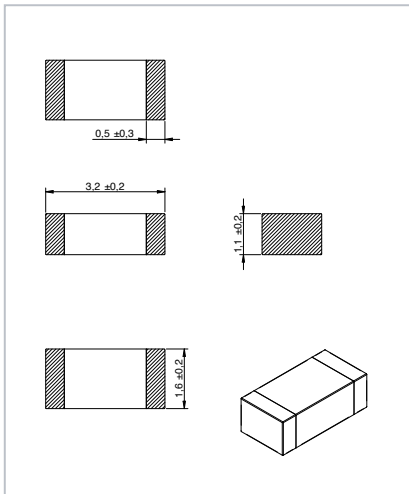


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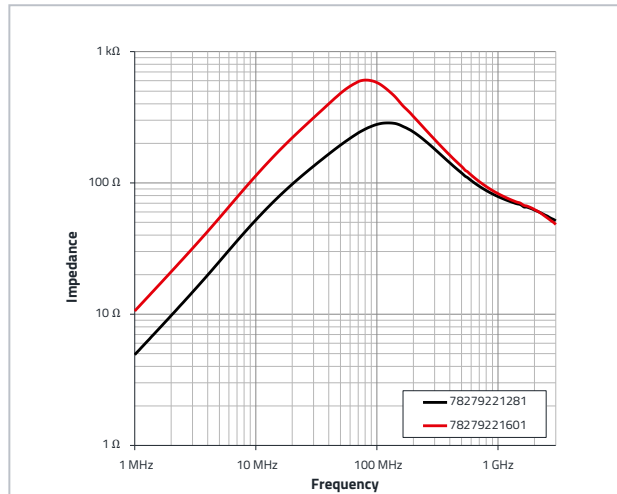
Order Code	Z @ 100 MHz (Ω)	Z _{max} (Ω)	I _R (A)	R _{DC} (mΩ)	Type
78279221281	280	288	3.5	35	High Current
78279221601	600	610	2.5	50	

Z @ 100 MHz: Impedance @ 100 MHz; Z_{max}: Maximum Impedance; I_R: Rated Current; Test Condition I_R: Rated Current (Test cond.); R_{DC}: DC Resistance

Dimensions: (mm)



Impedance vs. Frequency

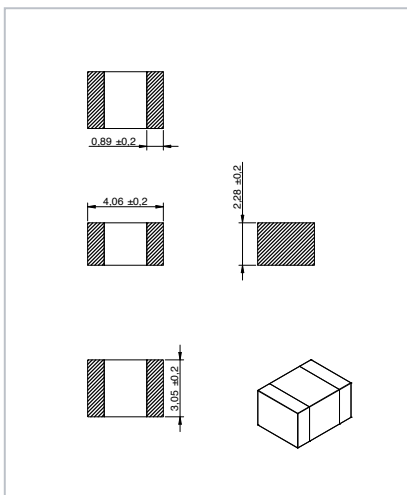


Size 1612

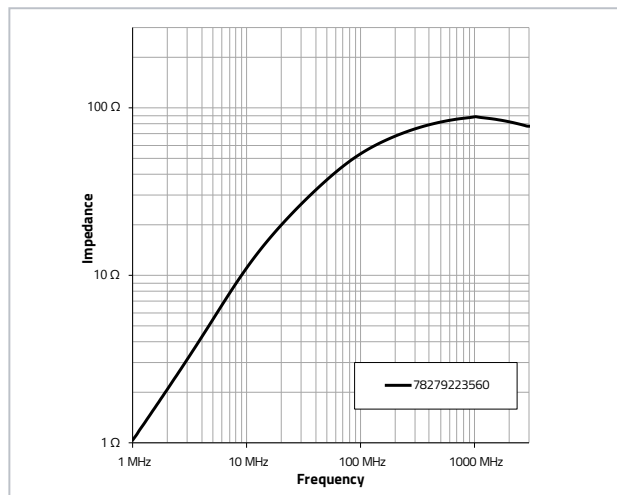
Order Code	Z @ 100 MHz (Ω)	Z _{max} (Ω)	I _R (A)	R _{DC} (mΩ)	Type
78279223560	56	90	10	4	High Current

Z @ 100 MHz: Impedance @ 100 MHz; Z_{max}: Maximum Impedance; I_R: Rated Current; Test Condition I_R: Rated Current (Test cond.); R_{DC}: DC Resistance

Dimensions: (mm)



Impedance vs. Frequency

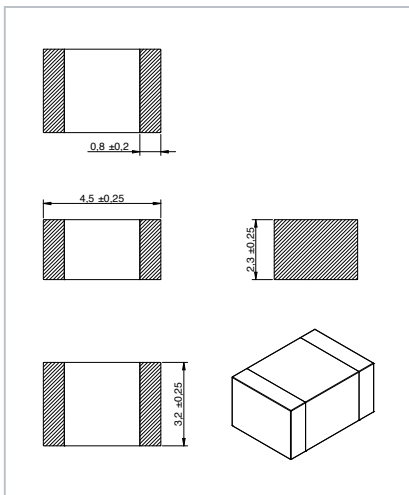


Size 1812

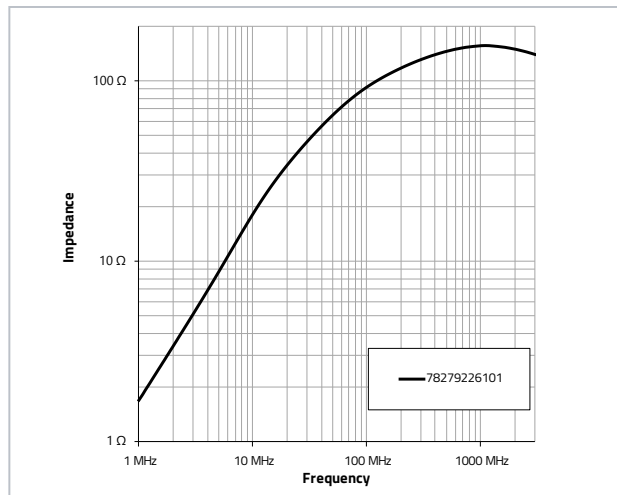
Order Code	Z @ 100 MHz (Ω)	Z _{max} (Ω)	I _R (A)	R _{DC} (mΩ)	Type
78279226101	100	160	8	6	High Current

Z @ 100 MHz: Impedance @ 100 MHz; Z_{max}: Maximum Impedance; I_R: Rated Current; Test Condition I_R: Rated Current (Test cond.); R_{DC}: DC Resistance

Dimensions: (mm)



Impedance vs. Frequency

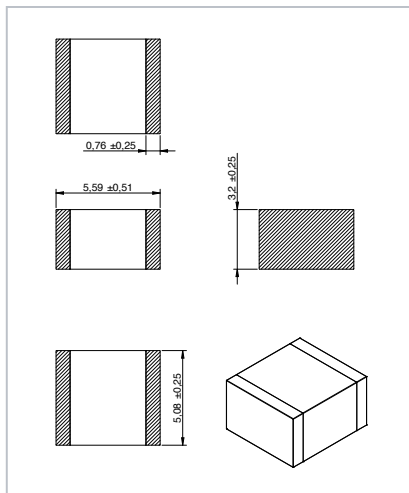


Size 2220

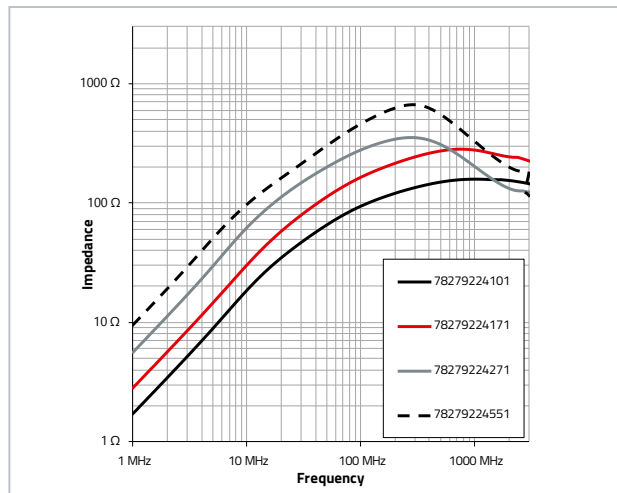
Order Code	Z @ 100 MHz (Ω)	Z _{max} (Ω)	I _R (A)	R _{DC} (mΩ)	Type
78279224101	100	160	7	5	High Current
78279224151	150	230	5	10	
78279224171	170	280	4	15	
78279224181	180	240	5	10	
78279224251	250	300	4	12	
78279224271	270	350	4	20	
78279224401	400	460	4.5	20	
78279224551	550	660	4	35	

Z @ 100 MHz: Impedance @ 100 MHz; Z_{max}: Maximum Impedance; I_R: Rated Current; Test Condition I_R: Rated Current (Test cond.); R_{DC}: DC Resistance

Dimensions: (mm)



Impedance vs. Frequency

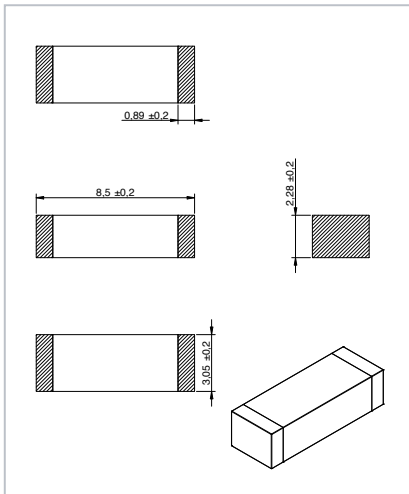


Size 3312

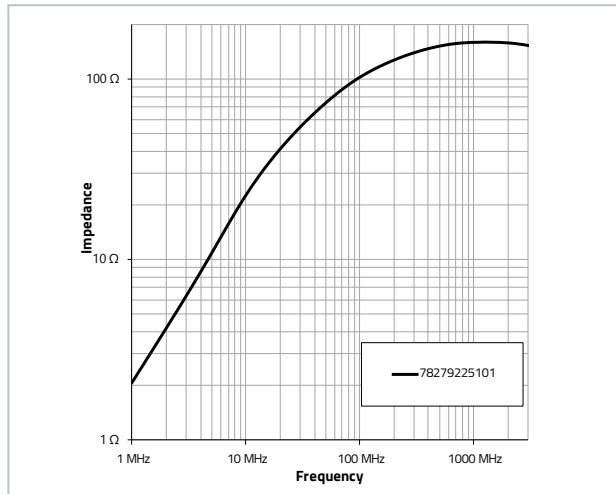
Order Code	Z @ 100 MHz (Ω)	Z _{max} (Ω)	I _R (A)	R _{DC} (mΩ)	Type
78279225101	100	160	10	4	High Current

Z @ 100 MHz: Impedance @ 100 MHz; Z_{max}: Maximum Impedance; I_R: Rated Current; Test Condition I_R: Rated Current (Test cond.); R_{DC}: DC Resistance

Dimensions: (mm)

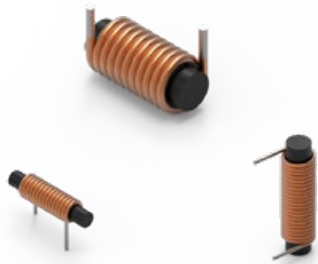


Impedance vs. Frequency



WE-RCIT

ROD CORE INDUCTOR THT



Characteristics

- Operating temperature: up to +150 °C
- High current capability
- Very reliable mechanical design
- Very high magnetic saturation

Applications

- Standard filter applications
- EMC suppression in motor drive systems
- Application in infotainment systems

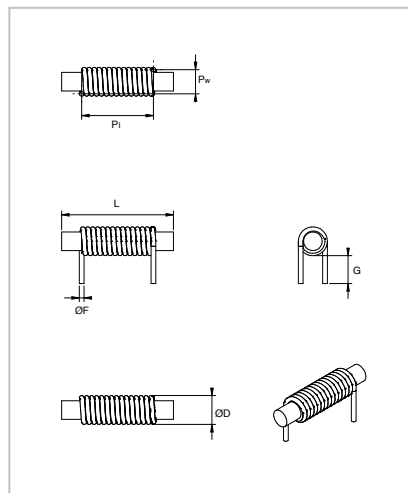
Order Code	I _R (A)	I _{SAT} (A)	R _{DC} (mΩ)	L (μH)	L (mm)	P _I (mm)	Ø D (mm)	P _w (mm)	G (mm)	Ø F (mm)
7847111100	3	7	33	10	18.5	13.5	5.2	4.6	3	0.5
7847120060	3.4	6.5	22	6	15.4	11.5	4.2	3.6		0.5
7847110020	4	5	11	2	12.3	7.7	3.2	2.6		0.5
7847121100	5.5	11.5	15.1	10	22.5	18.8	6.9	5.9		0.8
7847121060	6.4	15	11.7	6	20.5	14.7	6.9	5.9		0.8
7847111020	7	18	6.5	2	14	9.6	5.9	4.9		0.8
7847131100	10	13	8.8	10	30.9	24.9	8.6	7.3		1.12
7847131060	10	19	6.5	6	25.7	18	8.6	7.3		1.12
7847121020	10	32	3.8	2	15.4	12.2	7.6	6.3		1.12
7847131020	15	34	1.7	2	25.7	17.5	10	8		1.8
7847132060	15	45	3.5	6	30	24.9	14	12		1.8
7847132100	15	56	5.7	10	30.8	29.2	16	14		1.7

I_R: Rated Current; I_{SAT}: Saturation Current; R_{DC}: DC Resistance; L: Inductance; P_I: Pin to Pin (Middle); Ø D: Diameter; P_w: Pin to Pin (Middle); G: Pin length; Ø F: Pin Diameter

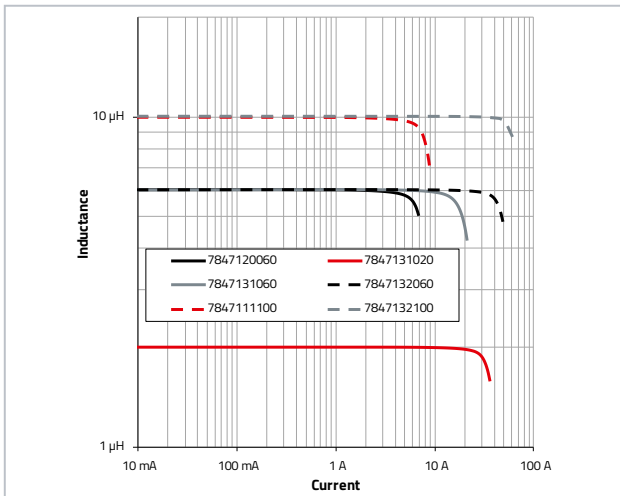
Test Conditions

L: @20 °C 10 kHz / 5 mA

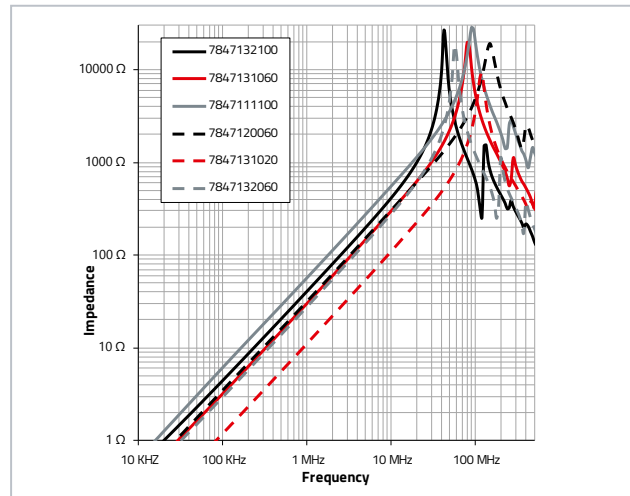
Dimensions: (mm)



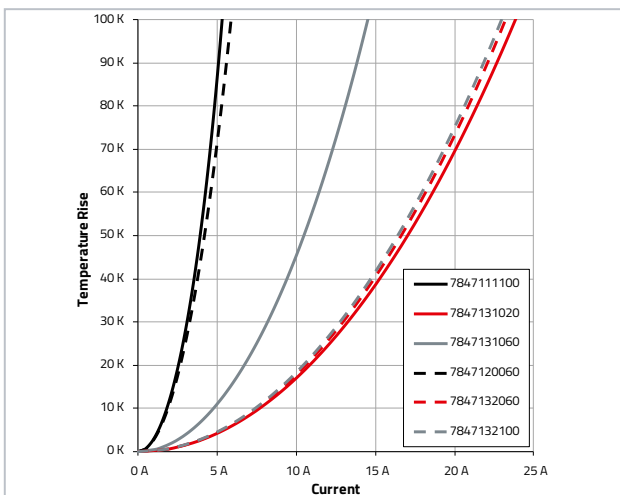
Inductance vs. Current



Impedance vs. Frequency



Temperature Rise vs. Current



WE-RCIS

ROD CORE INDUCTOR SMT



Characteristics

- Operating temperature up to +150°C
- High current capability
- Very high magnetic saturation
- High insertion loss at FM band
- Broadband suppression
- Robust mechanical design
- Packaging: Tape & reel / pick & place

Applications

- Integrated DC / DC converters
- EMC suppression in motor drive systems
- Infotainment systems

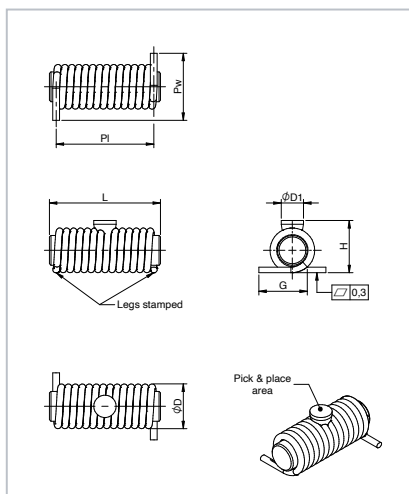
Order Code	I _R (A)	I _{SAT} (A)	R _{DC} (mΩ)	L (μH)	L (mm)	P _i (mm)	∅ D (mm)	P _w (mm)	G (mm)	∅ F (mm)
7847225100	3.25	7.4	33	10.4	18.2	14	4	6	4	0.35
7847227027	10	17.5	6.4	2.72	14.9	13.1	6.5	9	6.5	1
7847232045	12	45	3.8	4.45	25	18.6	11.5	13	6	1.5
7847229020	15	39	2.4	1.96	18	15.5	9.3	9	5.5	1.5
7847239015	17.5	18.5	1.1	1.41	22.6	21.2	8.2	8.8	6.4	2
7847227010	22.5	29	2	1	15	11.6	7.1	10	7	1.5

I_R: Rated Current; I_{SAT}: Saturation Current; R_{DC}: DC Resistance; L: Inductance; P_i: Pin to Pin (Middle); ∅ D: Diameter; P_w: Pin to Pin (Middle); G: Pin length; ∅ F: Pin Diameter

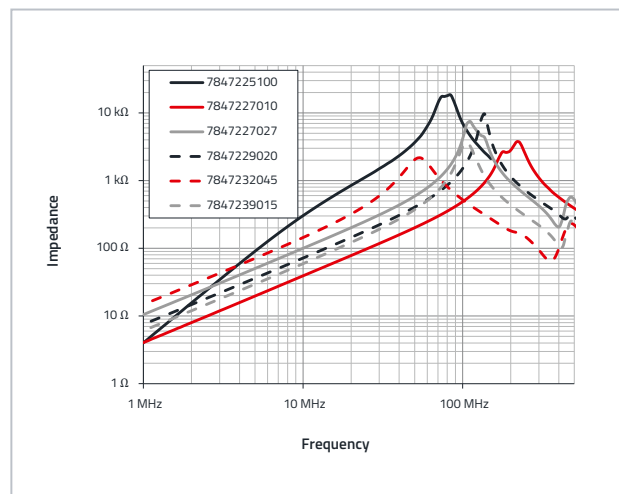
Test Conditions

L: @20°C 1 V / 1 KHz – 1 V / 10 KHz

Dimensions: (mm)

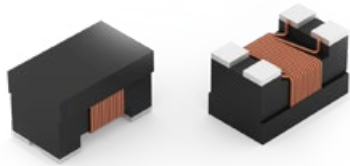


Impedance vs. Frequency



Learn more in our online catalog
www.we-online.com/we-rcis

SMT COMMON MODE LINE FILTER



Characteristics

- Current compensated data line filter
- High common mode noise suppression at high frequencies
- Low RDC design
- AEC-Q200

Applications

- Car infotainment
- Flex ray
- High speed data lines
- IEEE 1394 (Firewire)
- LVDS
- USB 2.0 & 3.0
- Recommended for A2B®
- CAN FD

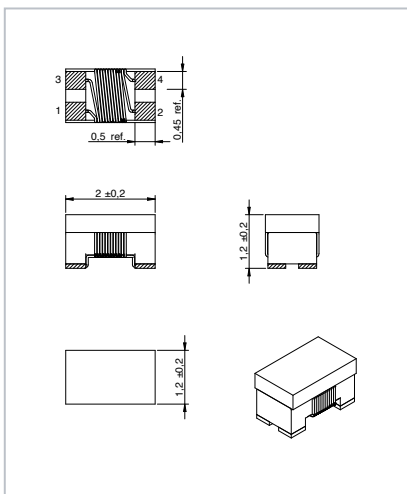
Automotive released CMC

Size 0805

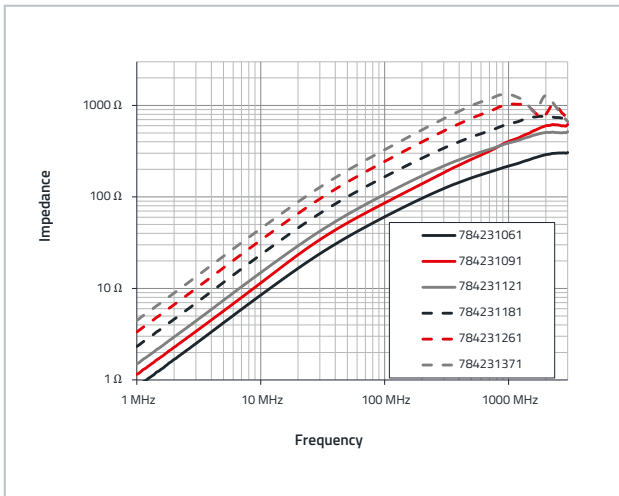
Order Code	Winding Style	L (μH)	Z @ 10 MHz (Ω)	Z @ 100 MHz (Ω)	R _{DC max.} (Ω)	I _R (mA)
784231061	bifilar	0.088	10	67	0.25	400
784231091		0.131	12	90	0.3	370
784231121		0.166	18	120	0.3	370
784231181		0.252	28	180	0.35	330
784231261		0.367	36	260	0.4	300
784231371		0.478	54	370	0.45	280

L: Inductance; Z @ 10 MHz: Impedance @ 10 MHz; Z @ 100 MHz: Impedance @ 100 MHz; R_{DC max.}: DC Resistance max.; I_R: Rated Current

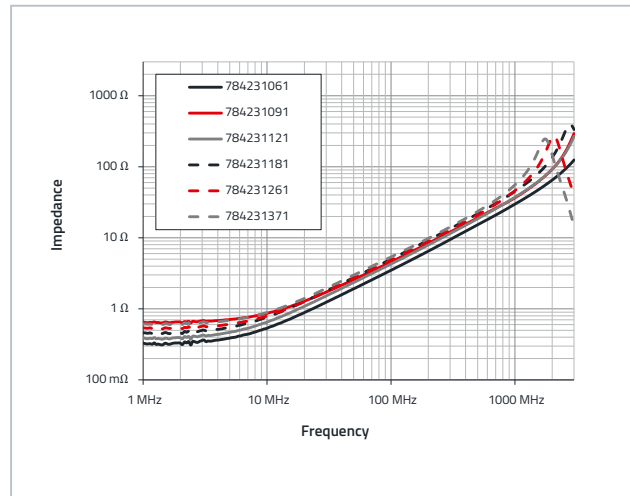
Dimensions: (mm)



Impedance vs. Frequency (Common Mode)



Impedance vs. Frequency (Differential Mode)

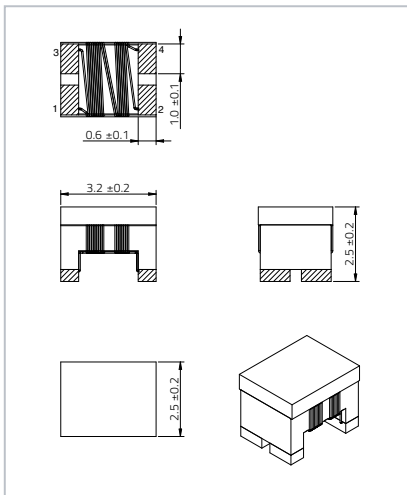


Size 1210

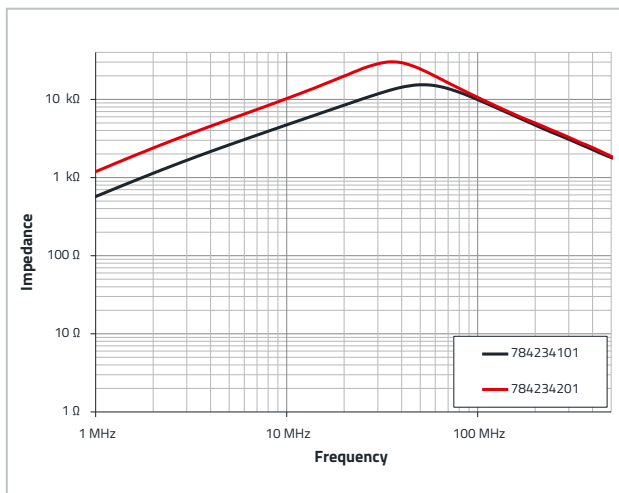
	Order Code	Winding Style	L (μH)	Z @ 10 MHz (Ω)	Z @ 100 MHz (Ω)	I _R (mA)
NEW!	784234101	bifilar	100	4890	9850	100
NEW!	784234201		200	10640	10500	70

L: Inductance; Z @ 10 MHz: Impedance @ 10 MHz; Z @ 100 MHz: Impedance @ 100 MHz; I_R: Rated Current

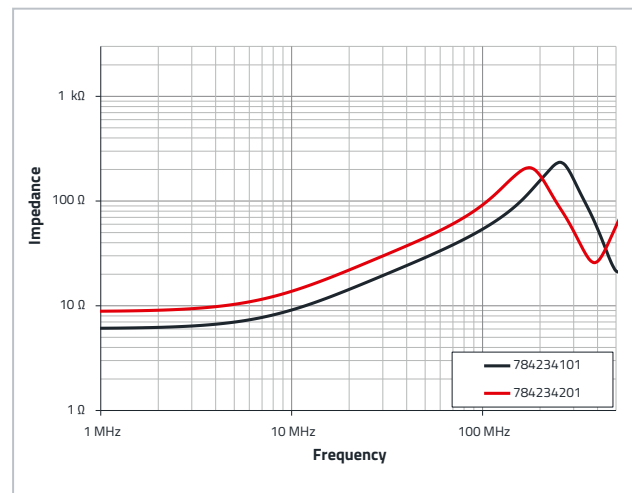
Dimensions: (mm)



Impedance vs. Frequency (Common Mode)

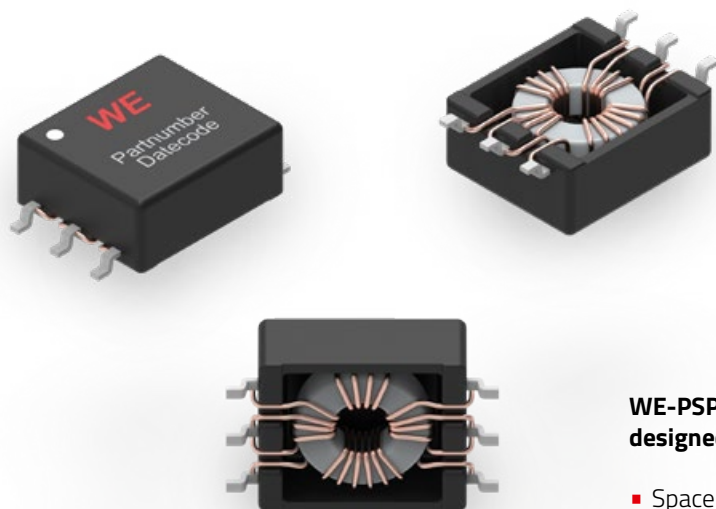


Impedance vs. Frequency (Differential Mode)



WE-PSPA

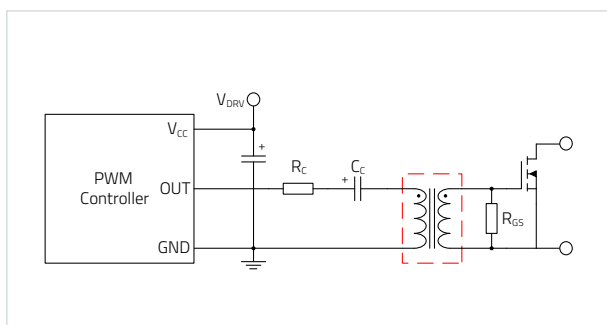
PUSH PULL & GATE DRIVE TRANSFORMER



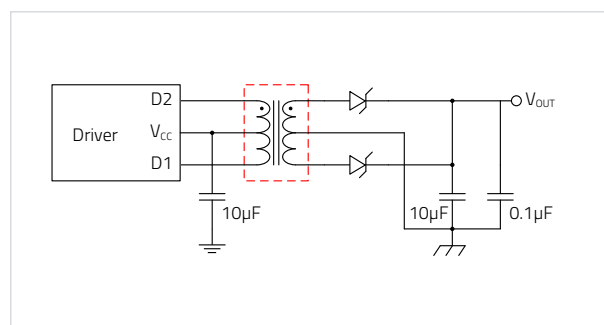
WE-PSPA is a small sized power transformer specially designed for Push-Pull and Gate Drive applications.

- Space reduction due to its low profile.
- Suitable for a great variety of applications thanks to its different turn ratios.
- Perfectly reliable for automotive applications because of its automated manufacturing process.

Simplified Gate Drive Transformer Circuit

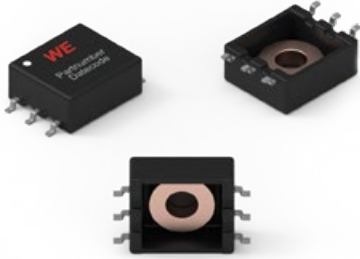


Simplified Push Pull Application



An important parameter of the Push Pull and Gate Drive Transformer is the product of time and voltage, until the core saturates. The voltage-time product $V \cdot t$ (unit: volt-second) is calculated of the inductance L and the saturation current I_{sat} . When selecting a transformer, you should ensure, that enough volt-seconds are available, depending on the frequency and pulse bandwidth of the application.

PUSH PULL & GATE DRIVE TRANSFORMER



Characteristics

- Operating temperature: -40 °C up to +125 °C
- Surface mount
- AEC-Q200
- Variety of turn ratios
- Output voltages from 5 V up to 23 V

Applications

- As a Gate Drive Transformer
- Transformer for Push Pull DC/DC Converter
- For isolated interfaces RS 485, CAN

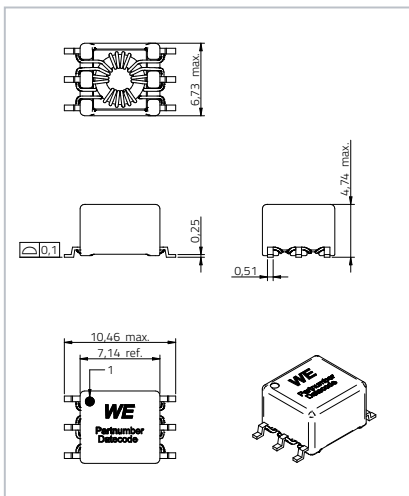
Low profile

Size 1006

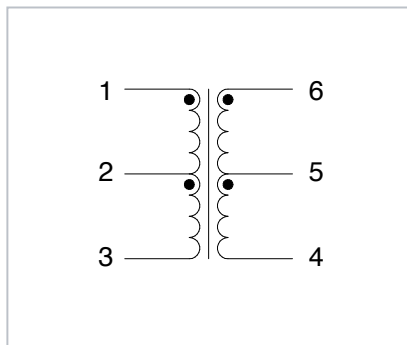
	Order Code	L (μH)	n	R _{DC1} (mΩ)	R _{DC2} (mΩ)	R _{DC3} (mΩ)	R _{DC4} (mΩ)	fUdt (Vμs)	L _S (nH)	V _T (V (AC))	V _{in} (V)	V _{Out1} (V)	I _{Out1} (mA)
	78931610505	475	1:1.15	140	140	150	150	11	500	2500	5	5	350
NEW!	78931610503		1:1.23	135	135	155	155				5	3.3	350
NEW!	78931610506		1:1.31	135	135	160	160				5	5	350
NEW!	78931610305		1:1.69	145	145	210	210				3.3	5	350
NEW!	78931610306		1:2	145	145	240	240				3.3	5	350
	78931610512		1:2.54	165	165	335	335				5	12	150
	78931610515		1:3.15	155	155	635	635				5	15	115
	78931610518		1:3.77	160	160	775	775				5	18	100

L: Inductance; n: Turns Ratio; R_{DC1}: DC Resistance 1; R_{DC2}: DC Resistance 2; R_{DC3}: DC Resistance 3; R_{DC4}: DC Resistance 4; fUdt: Voltage-μSecond; L_S: Leakage Inductance; V_T: Insulation Test Voltage; V_{in}: Input Voltage; V_{Out1}: Output Voltage 1; I_{Out1}: Output Current 1

Dimensions: (mm)



Schematic:

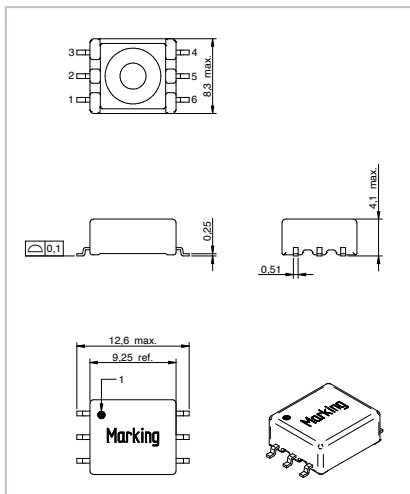


Size 1208

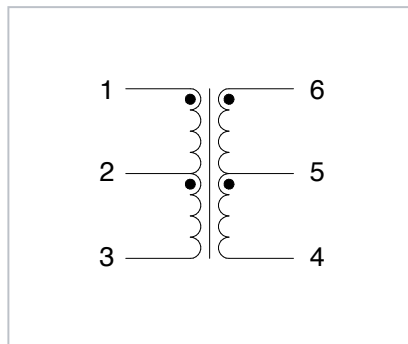
Order Code	L (μH)	n	$R_{\text{DC}1}$ ($\text{m}\Omega$)	$R_{\text{DC}2}$ ($\text{m}\Omega$)	$R_{\text{DC}3}$ ($\text{m}\Omega$)	$R_{\text{DC}4}$ ($\text{m}\Omega$)	$\int \text{Udt}$ ($\text{V}\mu\text{s}$)	L_s (nH)	V_T (V (AC))	V_{in} (V)	V_{Out1} (V)	I_{Out1} (mA)
78931812505	86	1:1.13	55	55	60	60	9.5	600	2500	5	5	750
78931812512		1:2.5	60	60	125	125		300			12	310
78931812515		1:3.13	60	60	230	230		300			15	250
78931812518		1:3.75	60	60	280	280		300			18	210
78931812523		1:4.75	65	65	350	350		300			23	165

L: Inductance; n: Turns Ratio; $R_{\text{DC}1}$: DC Resistance 1; $R_{\text{DC}2}$: DC Resistance 2; $R_{\text{DC}3}$: DC Resistance 3; $R_{\text{DC}4}$: DC Resistance 4; $\int \text{Udt}$: Voltage- μSecond ;
 L_s : Leakage Inductance; V_T : Insulation Test Voltage; V_{in} : Input Voltage; V_{Out1} : Output Voltage 1; I_{Out1} : Output Current 1

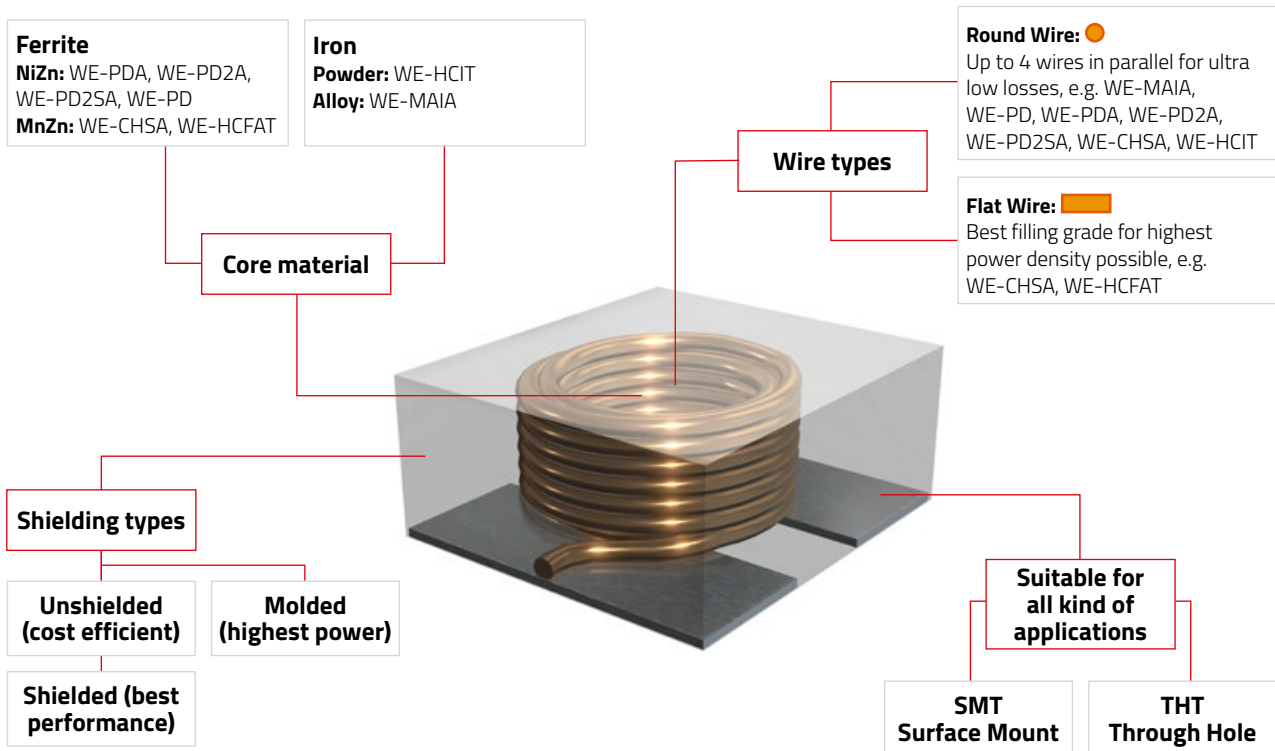
Dimensions: (mm)



Schematic:

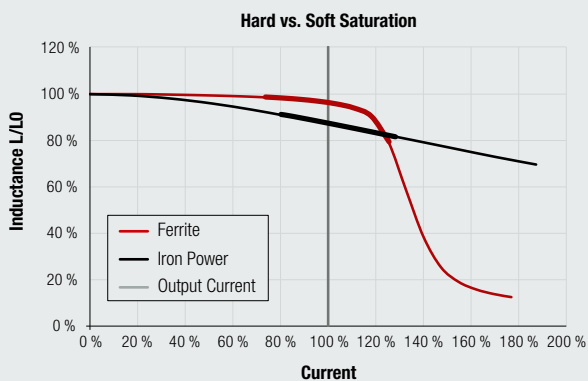


SINGLE COIL INDUCTORS



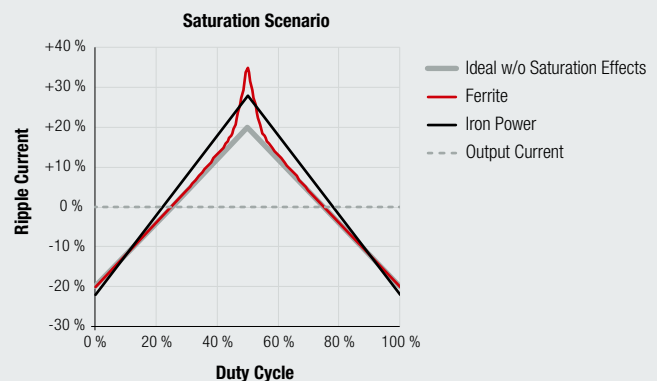
- AEC-Q200 qualified
- Temperature range: -40 °C up to +125 °C / +150 °C
- Outstanding saturation behavior
- Extreme low RDC
- Highest power density based in package volume
- Robust design for advanced applications
- Best filter characteristics
- Size from 1.6 mm up to 27.5 mm
- Current rating up to >47 A
- Inductance value from 0.33 µH up to 1000 µH
- Switching frequency from 10 kHz up to 10 MHz

Inductor in a DC/DC Converter



- Thick lines are showing the current load of the inductor with the duty cycle shown in the right graph
- The current load is depending on the switching frequency and the inductance value

Ripple Current over Inductor



- In this example the duty cycle is 50%
- Soft saturation leads to overall higher ripple
- Hard saturation may lead to ripple peaks when inductor is close to saturation

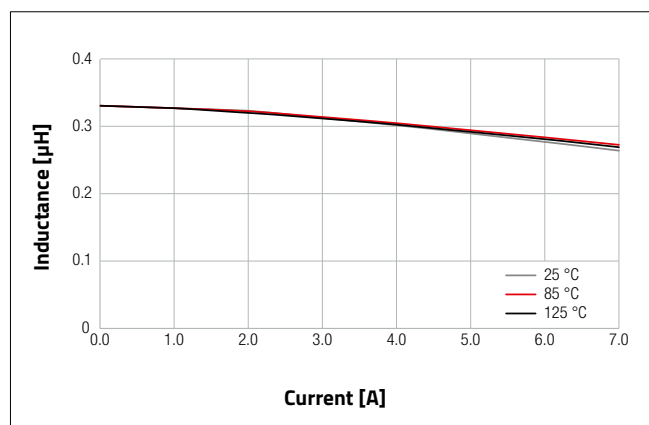
LOWEST AC & DC LOSSES IN CLASS

WE-MAIA

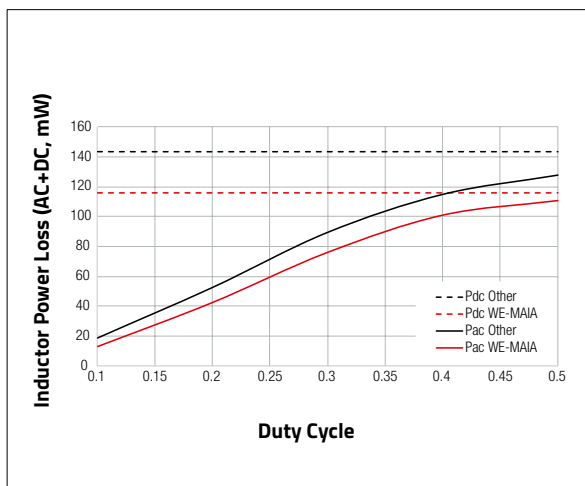
The WE-MAIA is designed to meet with the requirements of the latest and of the upcoming ICs. The innovative leadframe pad design with direct wire connection increases significantly the core utilization and therewith the current handling.

- Highest current ratings
- Lowest AC losses in class
- Incredibly low RDC
- Excellent temperature stability
- Innovative design
- Lowest EMI radiation

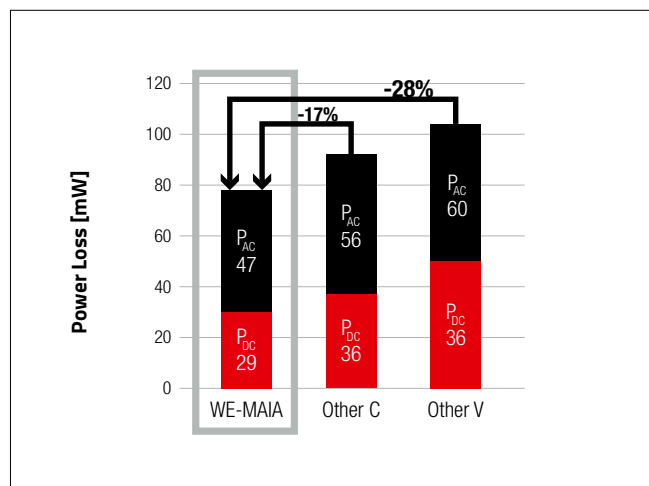
Excellent Temperature Stability



AC & DC Loss @ 500 kHz



Buck: 24 V to 12 V @ 2 A, 500 kHz, 2.2 µH



WE-MAIA

SMT POWER INDUCTOR



Characteristics

- Operating temperature: -40 °C up to +125 °C (HT: -55 °C up to +150 °C)
- Magnetic iron alloy allows high rated currents
- Compact design
- Magnetically shielded
- No acoustic noise and no leakage flux noise
- AEC-Q200

Applications

- Powertrain converters
- Body electronics & lighting
- Infotainment systems
- DC/DC-converter 48 V / 12 V
- POL-converter
- DC/DC converter for field programmable gate array
- BMS (battery management system)

NEW!

Size 2512 HT

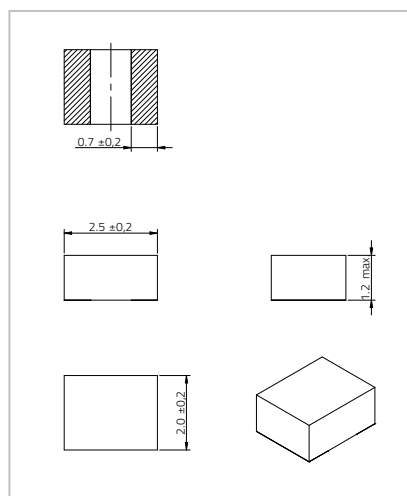
Order Code	L (μH)	Tol. L	I _{RP,40K} (A)	I _{SAT,10%} (A)	I _{SAT,30%} (A)	R _{DC max.} (mΩ)	f _{res} (MHz)
784383240033HT	0.33	±30%	6.2	4.1	8.6	26.7	174
784383240047HT	0.47		5.3	3.6	7.5	34.7	131
784383240056HT	0.56		4.7	3.2	6.7	44.1	102
78438324010HT	1	±20%	3.9	2.2	4.8	61.5	71
78438324012HT	1.2		3.5	2.3	4.7	74.7	67
78438324015HT	1.5		2.9	1.9	4	102.1	56
78438324022HT	2.2		2.2	1.6	3.5	162.5	53
78438324033HT	3.3		1.7	1.4	3	274.7	42
78438324047HT	4.7		1.4	1.1	2.4	367.6	33

L: Inductance; I_{RP,40K}: Performance Rated Current; I_{SAT,10%}: Saturation Current @ 10%; I_{SAT,30%}: Saturation Current @ 30%; R_{DC max.}: DC Resistance max.; f_{res}: Self Resonant Frequency

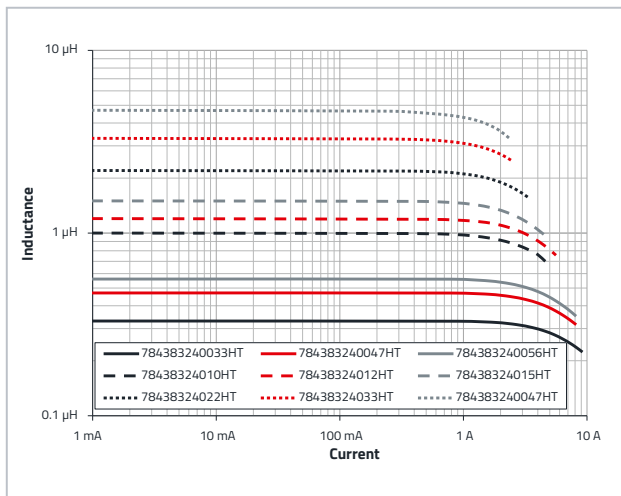
Test Conditions

I_{RP} referring to 40 K self-heating above ambient temperature
I_{SAT} referring to inductance loss of 30 % typ

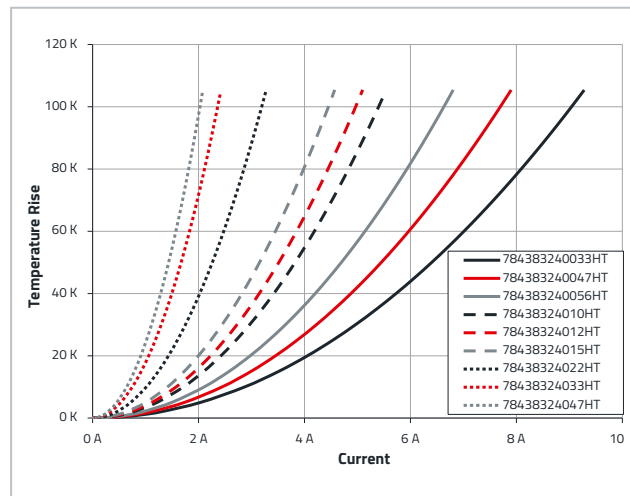
Dimensions: (mm)



Inductance vs. Current



Temperature Rise vs. Current



Size 3015 HT

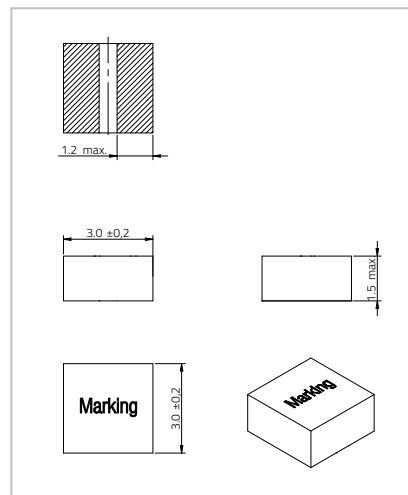
Order Code	L (μH)	Tol. L	I _{RP,40K} (A)	I _{SAT,10%} (A)	I _{SAT,30%} (A)	R _{DC max.} (mΩ)	f _{res} (MHz)
784383350056HT	0.56	±30%	7.3	4	7.8	22.2	93
784383350068HT	0.68		6.8	3.6	7.4	25.5	78
78438335010HT	1	±20%	4.5	3	5.9	53.2	73
78438335022HT	2.2		3.2	2.4	5	96	42
78438335033HT	3.3		2.7	2	4	133	35
78438335047HT	4.7		2.2	1.4	3.2	187.4	26
78438335068HT	6.8		1.7	1.4	3	310.7	22
78438335100HT	10		1.2	1.1	2.4	549.5	19

L: Inductance; I_{RP,40K}: Performance Rated Current; I_{SAT,10%}: Saturation Current @ 10%; I_{SAT,30%}: Saturation Current @ 30%; R_{DC max.}: DC Resistance max.; f_{res}: Self Resonant Frequency

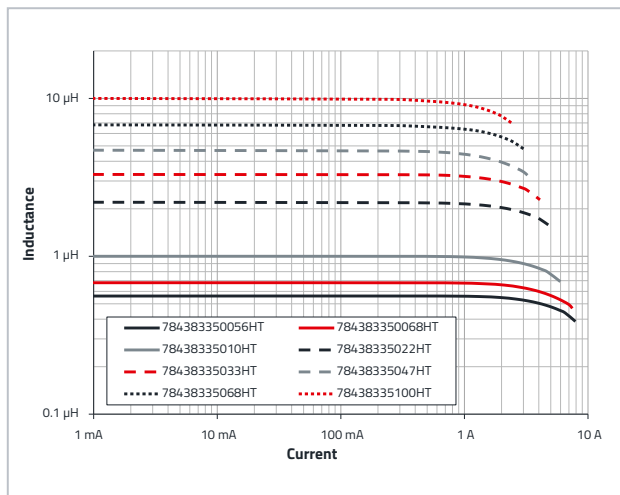
Test Conditions

I_{RP} referring to 40 K self-heating above ambient temperature
I_{SAT} referring to inductance loss of 30 % typ

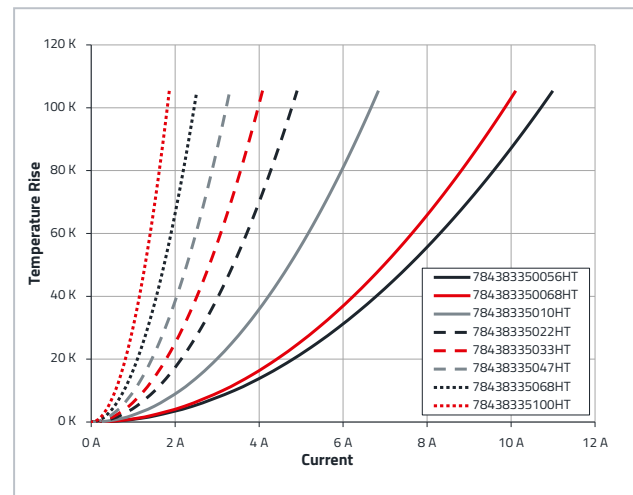
Dimensions: (mm)



Inductance vs. Current



Temperature Rise vs. Current



Size 3020 HT

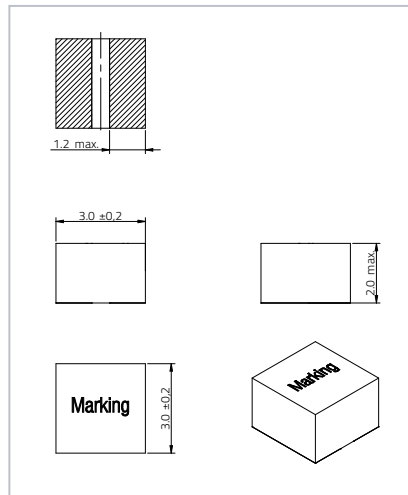
Order Code	L (μH)	Tol. L	I _{RP,40K} (A)	I _{SAT,10%} (A)	I _{SAT,30%} (A)	R _{DC max.} (mΩ)	f _{res} (MHz)
784383360068HT	0.68	±30%	6.4	2.8	6.7	28.1	85
78438336010HT	1	±20%	5.8	2.7	6.3	32.8	67
78438336012HT	1.2		5.4	2.7	6	37.5	60
78438336015HT	1.5		5.2	2.4	5.5	40.5	53
78438336022HT	2.2		4	2.3	5.2	65.5	47
78438336033HT	3.3		3.1	1.9	4.3	98.8	37
78438336047HT	4.7		2.5	2	4.1	150.2	28
78438336068HT	6.8		2	1.8	3.7	227.1	22

L: Inductance; I_{RP,40K}: Performance Rated Current; I_{SAT,10%}: Saturation Current @ 10%; I_{SAT,30%}: Saturation Current @ 30%; R_{DC max.}: DC Resistance max.; f_{res}: Self Resonant Frequency

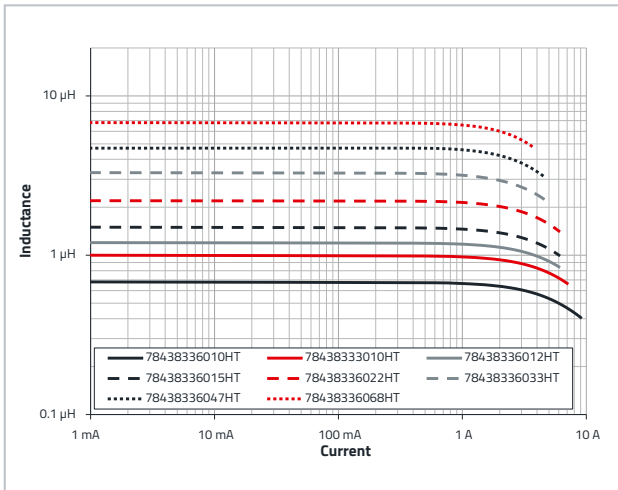
Test Conditions

I_{RP} referring to 40 K self-heating above ambient temperature
 I_{SAT} referring to inductance loss of 30 % typ

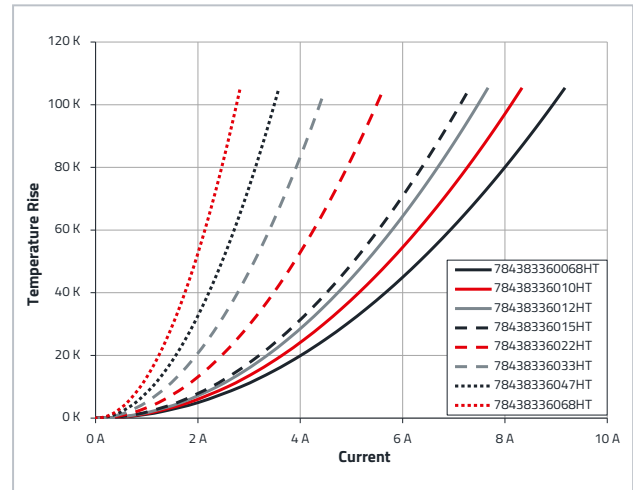
Dimensions: (mm)



Inductance vs. Current



Temperature Rise vs. Current



Size 4020 HT

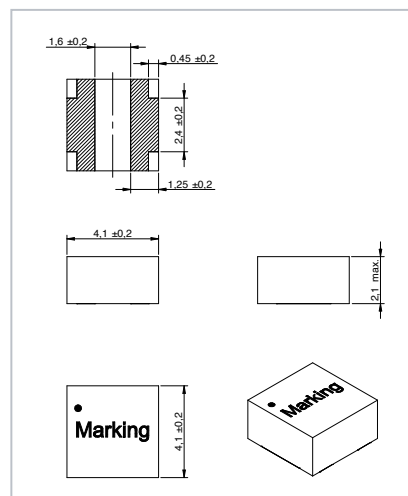
Order Code	L (μH)	Tol. L	$I_{\text{RP,40K}}$ (A)	$I_{\text{SAT,10\%}}$ (A)	$I_{\text{SAT,30\%}}$ (A)	$R_{\text{DC max.}}$ ($\text{m}\Omega$)	f_{res} (MHz)
784383560033HT	0.33	±30%	13.3	7.25	14.8	7.5	98
784383560047HT	0.47		12.7	6.45	13	8.1	83
784383560056HT	0.56	±20%	12.15	6.05	13	8.6	72
784383560068HT	0.68		11.7	5.45	11.7	9.2	67
78438356010HT	1		8.75	4.25	9.3	15.5	46
78438356012HT	1.2		8	4.3	9.3	18.4	45
78438356015HT	1.5		7.45	4.2	9	20.7	40
78438356018HT	1.8		6.05	3.95	8.3	29.9	37.5
78438356022HT	2.2		5.9	3.7	7.6	32.2	30
78438356033HT	3.3		4.45	3.1	6.5	51.8	25.5
78438356047HT	4.7		3.7	2.35	5.05	74.8	18
78438356056HT	5.6		3.5	2.25	4.9	80.5	17

L: Inductance; $I_{\text{RP,40K}}$: Performance Rated Current; $I_{\text{SAT,10\%}}$: Saturation Current @ 10%; $I_{\text{SAT,30\%}}$: Saturation Current @ 30%; $R_{\text{DC max.}}$: DC Resistance max.; f_{res} : Self Resonant Frequency

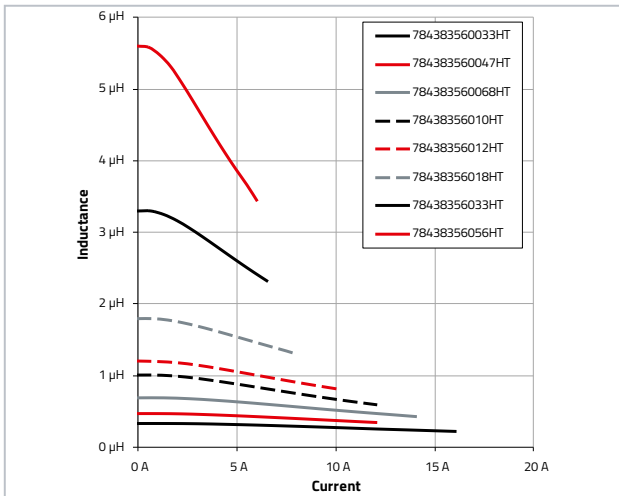
Test Conditions

I_{RP} referring to 40 K self-heating above ambient temperature
 I_{SAT} referring to inductance loss of 30 % typ

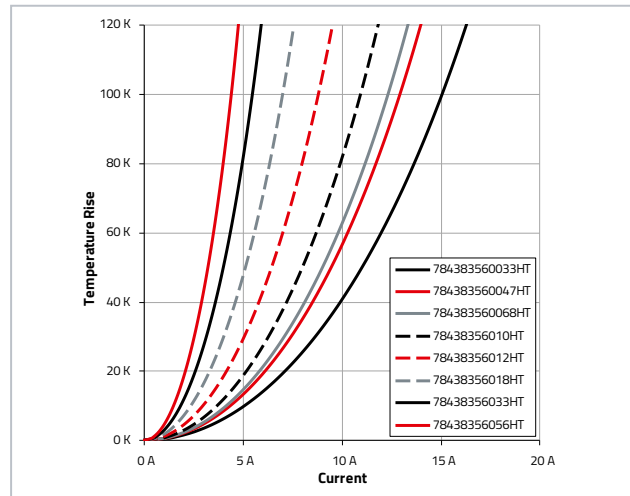
Dimensions: (mm)



Inductance vs. Current



Temperature Rise vs. Current



Size 6030 HT

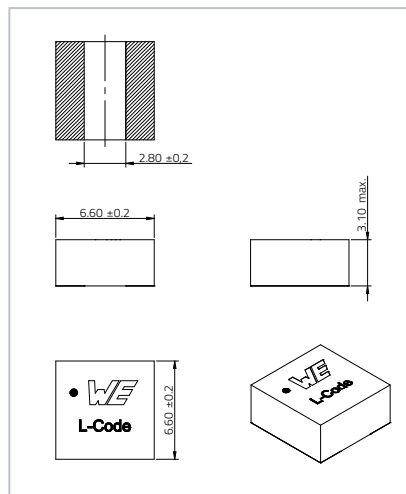
Order Code	L (μH)	Tol. L	I _{RP,40K} (A)	I _{SAT,10%} (A)	I _{SAT,30%} (A)	R _{DC,max.} (mΩ)	f _{res} (MHz)
784383770033HT	0.33	±30%	21.6	14.1	27.5	3	96
784383770068HT	0.68		16.7	10.6	21.5	5.6	55
78438377010HT	1	±20%	15.2	8.7	18	6.9	47
78438377022HT	2.2		11.4	6.3	12.8	13.7	28
78438377033HT	3.3		9.6	5.2	11.2	20.4	22

L: Inductance; I_{RP,40K}: Performance Rated Current; I_{SAT,10%}: Saturation Current @ 10%; I_{SAT,30%}: Saturation Current @ 30%; R_{DC,max.}: DC Resistance max.; f_{res}: Self Resonant Frequency

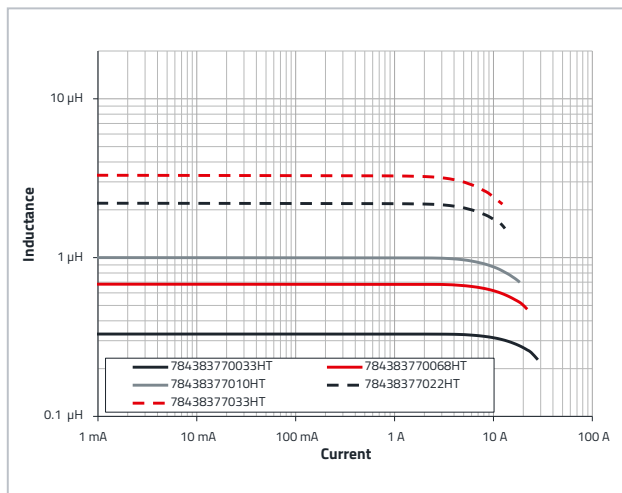
Test Conditions

I_{RP} referring to 40 K self-heating above ambient temperature
I_{SAT} referring to inductance loss of 30 % typ

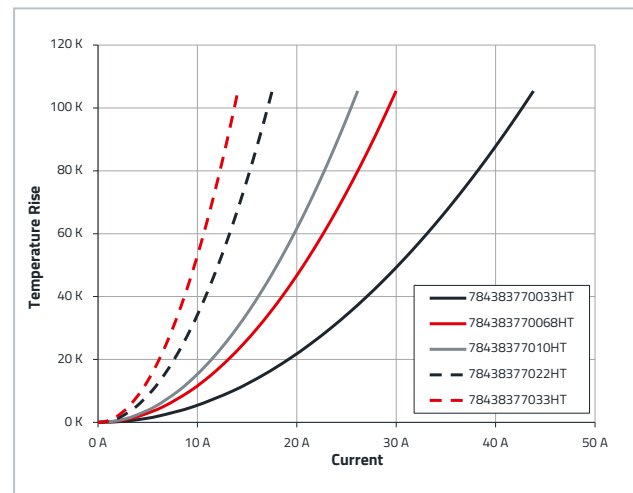
Dimensions: (mm)



Inductance vs. Current



Temperature vs. Current



Size 1610

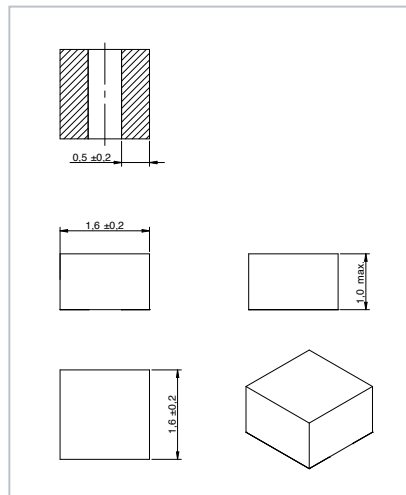
Order Code	L (μH)	Tol. L	$I_{\text{RP},40\text{K}}$ (A)	$I_{\text{SAT},10\%}$ (A)	$I_{\text{SAT},30\%}$ (A)	$R_{\text{DC,max.}}$ ($\text{m}\Omega$)	f_{res} (MHz)
784383130033	0.33	$\pm 30\%$	3.25	3.35	6.2	84	215
784383130047	0.47		2.95	3.05	5.6	101	200
784383130056	0.56		2.7	2.75	5.2	113	150
784383130068	0.68		2.55	2.55	4.8	126	135
784383130082	0.82		2.35	2.5	4.6	144	115
78438313010	1		2.2	2.25	4.25	159	111
78438313012	1.2		2.1	2.2	4.1	174	109
78438313015	1.5		1.8	1.8	3.45	237	90
78438313022	2.2		1.25	1.5	3.25	388	70

L: Inductance; $I_{\text{RP},40\text{K}}$: Performance Rated Current; $I_{\text{SAT},10\%}$: Saturation Current @ 10%; $I_{\text{SAT},30\%}$: Saturation Current @ 30%; $R_{\text{DC,max.}}$: DC Resistance max.; f_{res} : Self Resonant Frequency

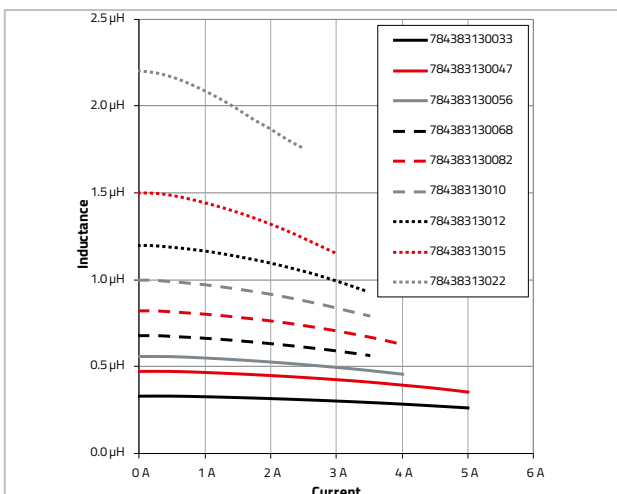
Test Conditions

I_{RP} referring to 40 K self-heating above ambient temperature
 I_{SAT} referring to inductance loss of 30 % typ

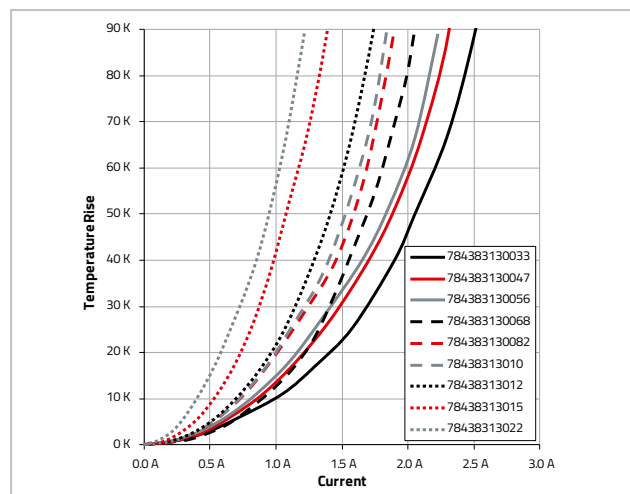
Dimensions: (mm)



Inductance vs. Current



Temperature Rise vs. Current



Size 2010

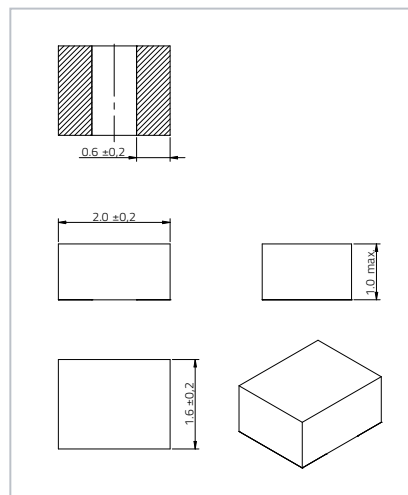
Order Code	L (μH)	Tol. L	I _{RP,40K} (A)	I _{SAT,10%} (A)	I _{SAT,30%} (A)	R _{DC,max.} (mΩ)	f _{res} (MHz)
784383430047	0.47	±30%	3.9	3.55	6.5	63	175
784383430056	0.56		3.6	3.3	6.2	73	135
784383430068	0.68		3.3	3.15	5.9	84	130
784383430082	0.82		3.15	2.8	5.35	92	125
78438343010	1	±20%	2.8	2.5	4.7	104	99
78438343012	1.2		2.4	2.55	4.9	136	96
78438343015	1.5		2.05	2	3.95	180	85
78438343022	2.2		1.65	1.65	3.3	270	70

L: Inductance; I_{RP,40K}: Performance Rated Current; I_{SAT,10%}: Saturation Current @ 10%; I_{SAT,30%}: Saturation Current @ 30%; R_{DC,max.}: DC Resistance max.; f_{res}: Self Resonant Frequency

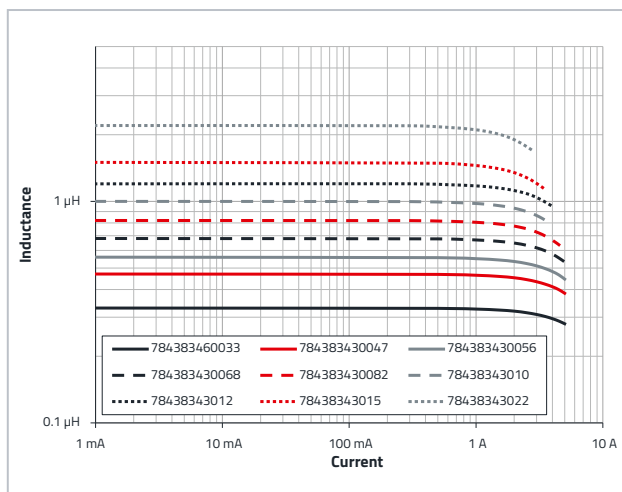
Test Conditions

I_{RP} referring to 40 K self-heating above ambient temperature
I_{SAT} referring to inductance loss of 30 % typ

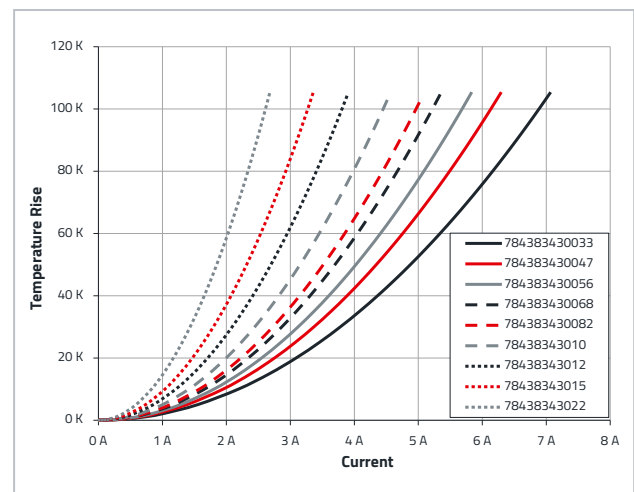
Dimensions: (mm)



Inductance vs. Current



Temperature Rise vs. Current



Size 2506

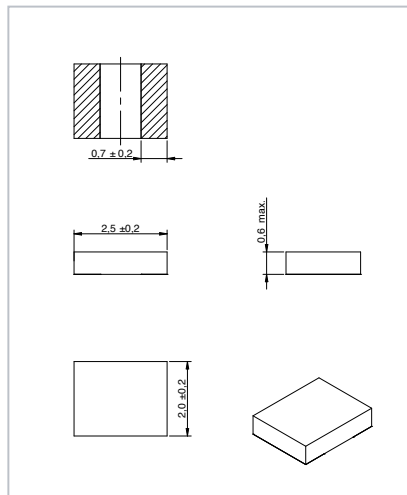
Order Code	L (μH)	Tol. L	$I_{\text{RP,40K}}$ (A)	$I_{\text{SAT,10\%}}$ (A)	$I_{\text{SAT,30\%}}$ (A)	$R_{\text{DC,max.}}$ ($\text{m}\Omega$)	f_{res} (MHz)
784383210047	0.47	$\pm 30\%$	3.25	2.55	4.65	95	165
78438321010	1		2.1	1.7	3.25	196	90

L: Inductance; $I_{\text{RP,40K}}$: Performance Rated Current; $I_{\text{SAT,10\%}}$: Saturation Current @ 10%; $I_{\text{SAT,30\%}}$: Saturation Current @ 30%; $R_{\text{DC,max.}}$: DC Resistance max.; f_{res} : Self Resonant Frequency

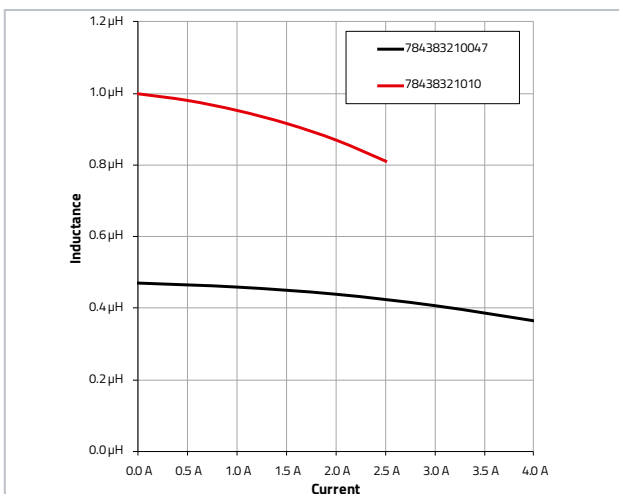
Test Conditions

I_{RP} referring to 40 K self-heating above ambient temperature
 I_{SAT} referring to inductance loss of 30 % typ

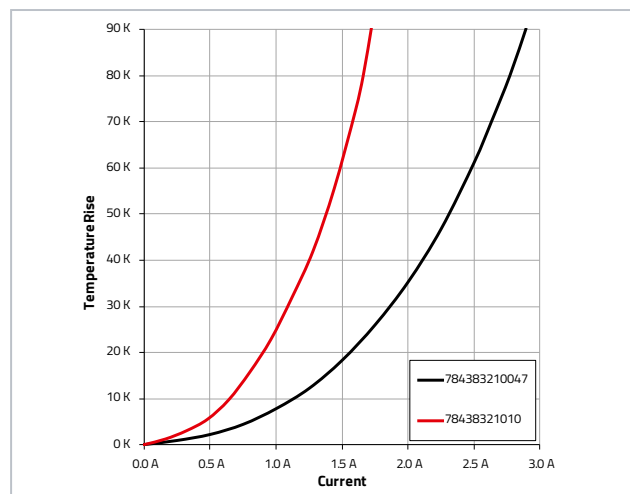
Dimensions: (mm)



Inductance vs. Current



Temperature Rise vs. Current



Size 2508

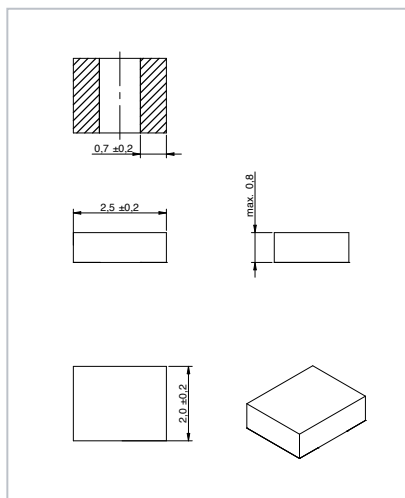
Order Code	L (μH)	Tol. L	$I_{\text{RP,40K}}$ (A)	$I_{\text{SAT,10\%}}$ (A)	$I_{\text{SAT,30\%}}$ (A)	$R_{\text{DC,max.}}$ ($\text{m}\Omega$)	f_{res} (MHz)
784383220047	0.47	$\pm 30\%$	3.35	2.85	5.65	87	160
78438322010	1		2.65	2.15	4.4	133	100
78438322022	2.2		1.65	1.4	2.8	302	60

L: Inductance; $I_{\text{RP,40K}}$: Performance Rated Current; $I_{\text{SAT,10\%}}$: Saturation Current @ 10%; $I_{\text{SAT,30\%}}$: Saturation Current @ 30%; $R_{\text{DC,max.}}$: DC Resistance max.; f_{res} : Self Resonant Frequency

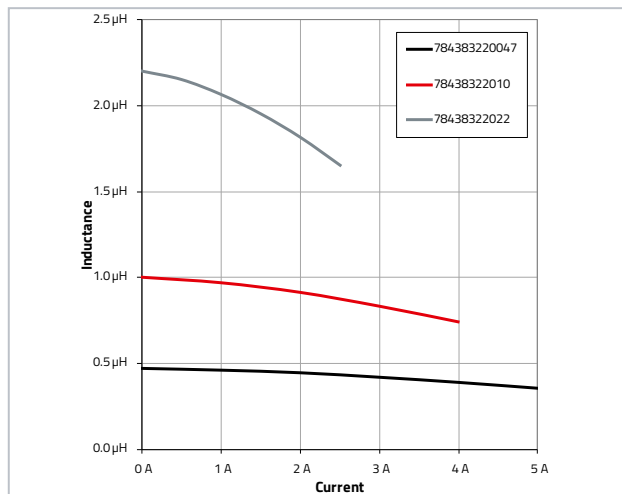
Test Conditions

I_{RP} referring to 40 K self-heating above ambient temperature
 I_{SAT} referring to inductance loss of 30 % typ

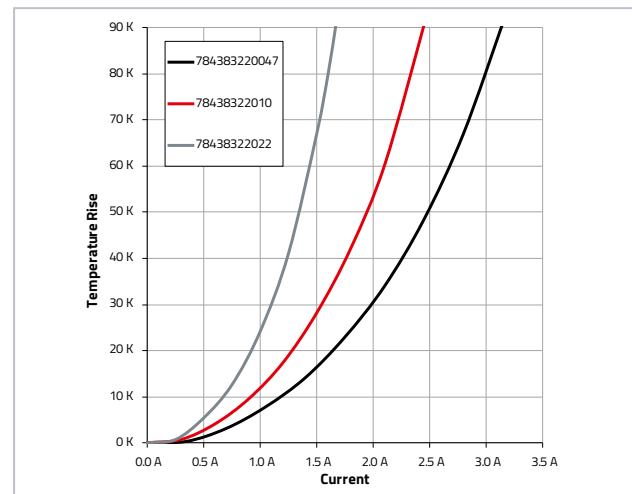
Dimensions: (mm)



Inductance vs. Current



Temperature Rise vs. Current



Size 2510

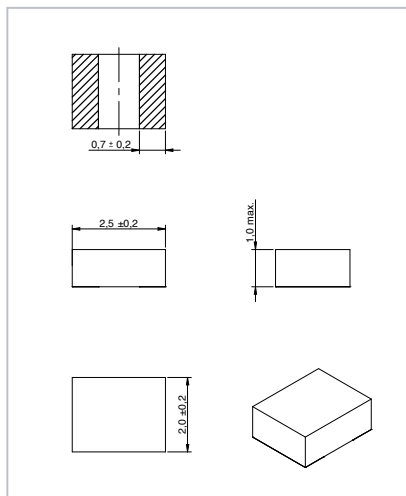
Order Code	L (μH)	Tol. L	$I_{\text{RP,40K}}$ (A)	$I_{\text{SAT,10\%}}$ (A)	$I_{\text{SAT,30\%}}$ (A)	$R_{\text{DC,max.}}$ ($\text{m}\Omega$)	f_{res} (MHz)
784383230033	0.33	$\pm 30\%$	5.5	4.25	8	38	180
784383230047	0.47		4.8	3.6	6.9	48	170
784383230068	0.68		4.25	3.1	6.1	60	135
784383230082	0.82		3.9	2.7	5.45	69	105
78438323010	1	$\pm 20\%$	3.55	2.6	5.3	75	80
78438323012	1.2		3.05	2.45	4.85	106	75
78438323015	1.5		2.85	2.25	4.75	110	65
78438323022	2.2		2.2	2	3.55	176	60
78438323033	3.3		1.75	1.35	2.7	264	50
78438323047	4.7		1.4	1.1	2.3	388	35
78438323068	6.8		1.05	1.05	2	648	30
78438323082	8.2		0.95	0.9	1.85	743	27
78438323100	10		0.9	0.85	1.7	843	25

L: Inductance; $I_{\text{RP,40K}}$: Performance Rated Current; $I_{\text{SAT,10\%}}$: Saturation Current @ 10%; $I_{\text{SAT,30\%}}$: Saturation Current @ 30%; $R_{\text{DC,max.}}$: DC Resistance max.; f_{res} : Self Resonant Frequency

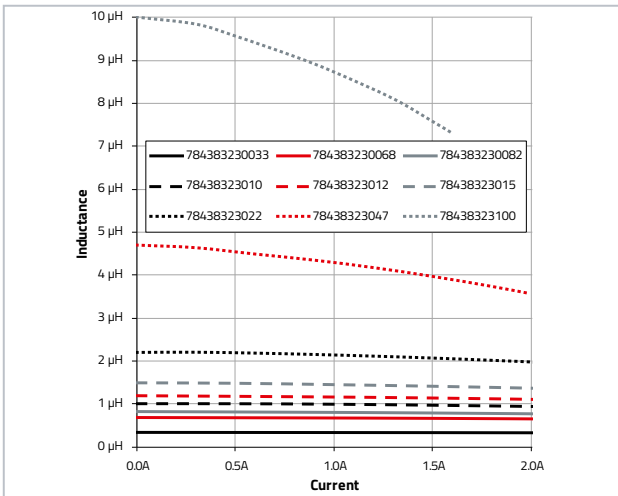
Test Conditions

I_{RP} referring to 40 K self-heating above ambient temperature
 I_{SAT} referring to inductance loss of 30 % typ

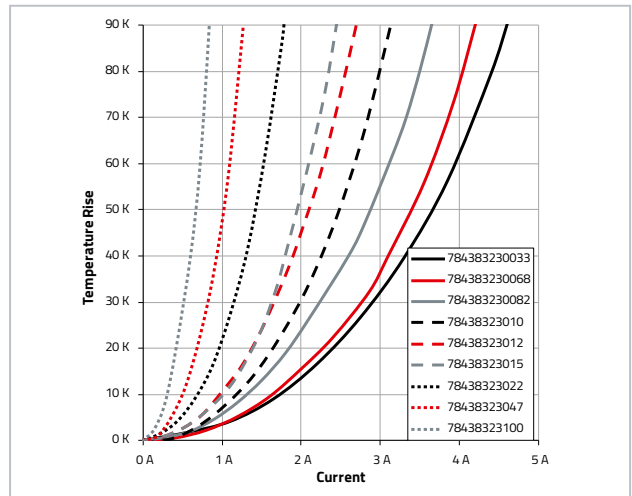
Dimensions: (mm)



Inductance vs. Current



Temperature Rise vs. Current



Size 2512

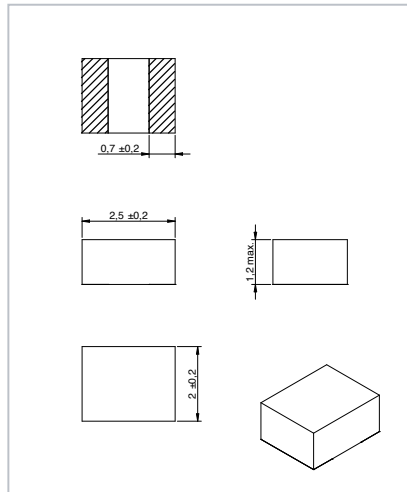
Order Code	L (μH)	Tol. L	$I_{\text{RP,40K}}$ (A)	$I_{\text{SAT,10\%}}$ (A)	$I_{\text{SAT,30\%}}$ (A)	$R_{\text{DC,max.}}$ ($\text{m}\Omega$)	f_{res} (MHz)
784383240047	0.47	$\pm 30\%$	5.35	4.15	8	40	145
784383240056	0.56		4.75	4.25	7.9	49	120
784383240068	0.68		4.25	3.8	7.4	59	102
78438324010	1	$\pm 20\%$	4.05	3.2	6.3	60	85
78438324012	1.2		3.4	3.05	5.8	80	80
78438324015	1.5		3.05	2.5	4.7	99	60
78438324022	2.2		2.45	1.85	3.65	141	57
78438324033	3.3		1.7	1.75	3.3	260	42
78438324047	4.7		1.45	1.4	2.65	345	35
78438324056	5.6		1.25	1.15	2.2	465	30
78438324068	6.8		1.05	1	2.05	640	27
78438324082	8.2		0.95	1	1.9	720	25
78438324100	10		0.9	0.95	1.75	780	23

L: Inductance; $I_{\text{RP,40K}}$: Performance Rated Current; $I_{\text{SAT,10\%}}$: Saturation Current @ 10%; $I_{\text{SAT,30\%}}$: Saturation Current @ 30%; $R_{\text{DC,max.}}$: DC Resistance max.; f_{res} : Self Resonant Frequency

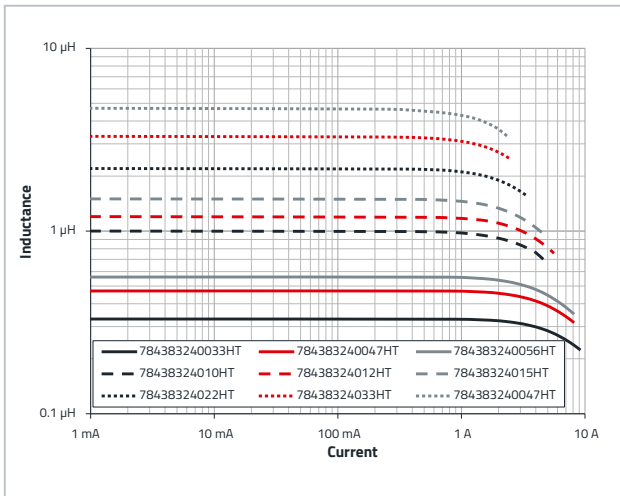
Test Conditions

I_{RP} referring to 40 K self-heating above ambient temperature
 I_{SAT} referring to inductance loss of 30 % typ

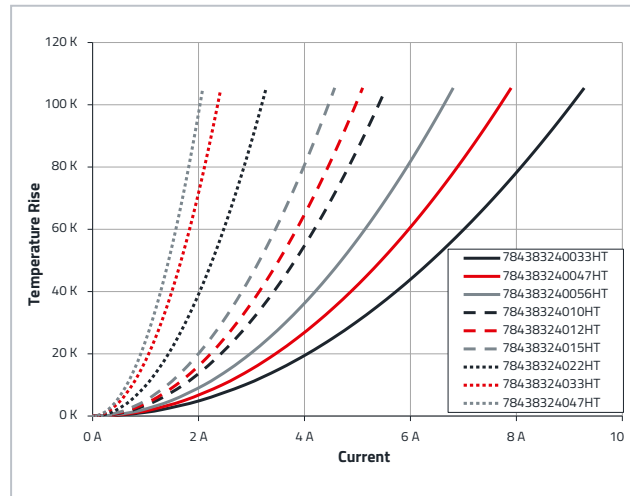
Dimensions: (mm)



Inductance vs. Current



Temperature Rise vs. Current



Size 3010

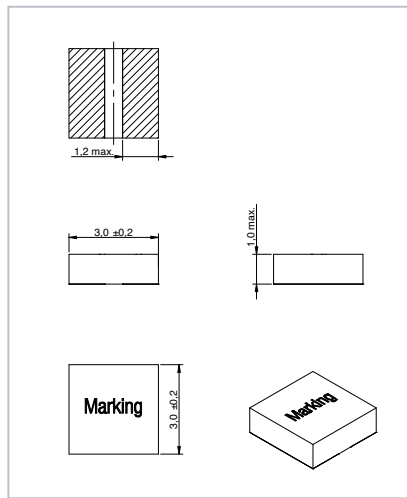
Order Code	L (μH)	Tol. L	$I_{\text{RP,40K}}$ (A)	$I_{\text{SAT,10\%}}$ (A)	$I_{\text{SAT,30\%}}$ (A)	$R_{\text{DC,max}}$ ($\text{m}\Omega$)	f_{res} (MHz)
78438333022	2.2	$\pm 20\%$	2.35	2.75	4.85	172	50
78438333033	3.3		1.85	2.05	3.7	266	38
78438333047	4.7		1.45	1.65	3	409	35

L: Inductance; $I_{\text{RP,40K}}$: Performance Rated Current; $I_{\text{SAT,10\%}}$: Saturation Current @ 10%; $I_{\text{SAT,30\%}}$: Saturation Current @ 30%; $R_{\text{DC,max}}$: DC Resistance max.; f_{res} : Self Resonant Frequency

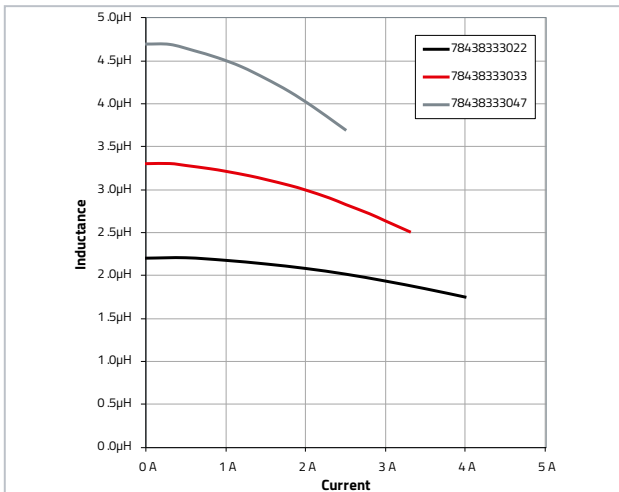
Test Conditions

I_{RP} referring to 40 K self-heating above ambient temperature
 I_{SAT} referring to inductance loss of 30 % typ

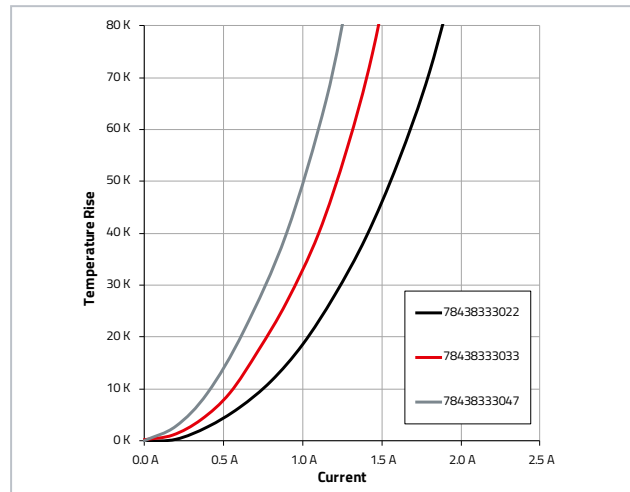
Dimensions: (mm)



Inductance vs. Current



Temperature Rise vs. Current



Size 3012

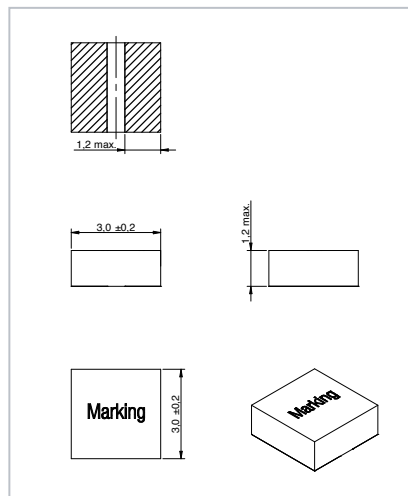
Order Code	L (μH)	Tol. L	$I_{\text{RP},40\text{K}}$ (A)	$I_{\text{SAT},10\%}$ (A)	$I_{\text{SAT},30\%}$ (A)	$R_{\text{DC,max.}}$ ($\text{m}\Omega$)	f_{res} (MHz)
784383340033	0.33	$\pm 30\%$	7.4	8.1	13.3	22.8	140
784383340047	0.47		6.8	5.95	12.3	26.4	110
784383340056	0.56		5.8	5.65	11.1	34.8	108
784383340068	0.68		5.15	4.95	10	43.2	100
78438334010	1	$\pm 20\%$	4.75	4.3	8.4	50.5	80
78438334012	1.2		4.05	4.15	7.5	66	66
78438334015	1.5		3.3	3.9	7.1	96	60
78438334022	2.2		2.9	3.6	6.1	115	50
78438334033	3.3		2.25	2.75	5.1	179.7	36
78438334047	4.7		1.7	2.6	4.75	307.8	30
78438334056	5.6		1.45	2.1	3.7	389	28
78438334068	6.8		1.4	1.75	3.5	423.4	25

L: Inductance; $I_{\text{RP},40\text{K}}$: Performance Rated Current; $I_{\text{SAT},10\%}$: Saturation Current @ 10%; $I_{\text{SAT},30\%}$: Saturation Current @ 30%; $R_{\text{DC,max.}}$: DC Resistance max.; f_{res} : Self Resonant Frequency

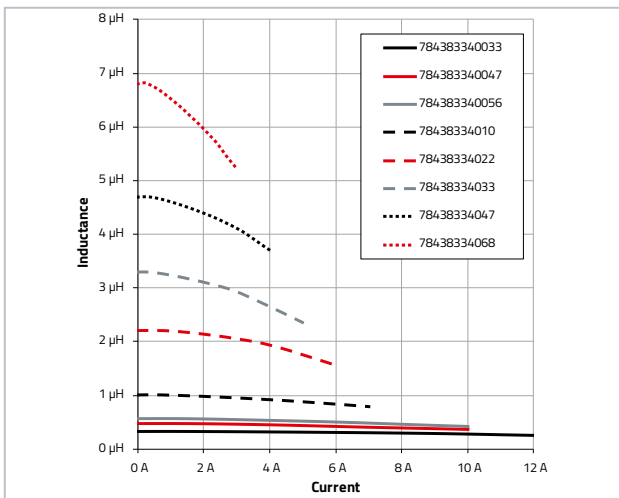
Test Conditions

I_{RP} referring to 40 K self-heating above ambient temperature
 I_{SAT} referring to inductance loss of 30 % typ

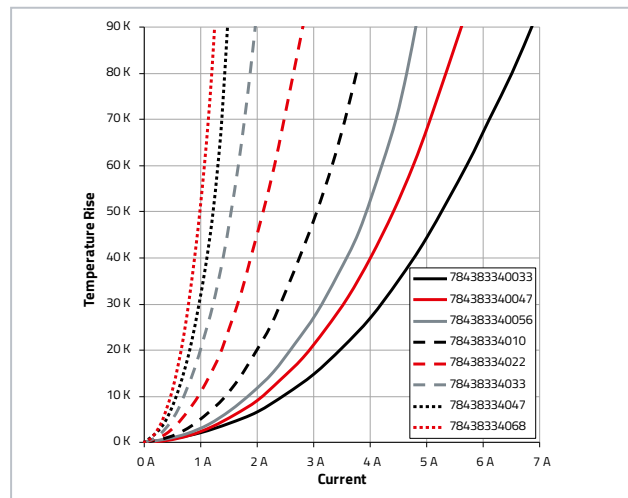
Dimensions: (mm)



Inductance vs. Current



Temperature Rise vs. Current



Size 3015

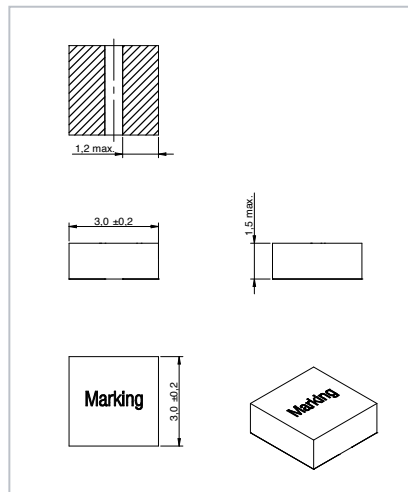
Order Code	L (μH)	Tol. L	$I_{\text{RP,40K}}$ (A)	$I_{\text{SAT,10\%}}$ (A)	$I_{\text{SAT,30\%}}$ (A)	$R_{\text{DC,max.}}$ ($\text{m}\Omega$)	f_{res} (MHz)
784383350047	0.47	$\pm 30\%$	7.1	4.35	7.4	23	105
784383350068	0.68		6.3	5.8	9.7	30	100
784383350082	0.82		5.7	4.95	9	35	85
78438335010	1	$\pm 20\%$	4.95	3	5.95	47	72
78438335022	2.2		3	2.5	4.2	108	45
78438335033	3.3		2.7	2.25	3.85	131	35
78438335047	4.7		2.4	1.85	3.7	162	30
78438335068	6.8		1.75	1.6	3.1	287	25
78438335100	10		1.25	1.35	3	513	21
78438335150	15		0.95	1.17	2.2	830	14
78438335220	22		0.85	1.1	2	1040	12
78438335330	33		0.7	0.9	1.7	1330	10
78438335470	47		0.5	0.75	1.5	2300	8

L: Inductance; $I_{\text{RP,40K}}$: Performance Rated Current; $I_{\text{SAT,10\%}}$: Saturation Current @ 10%; $I_{\text{SAT,30\%}}$: Saturation Current @ 30%; $R_{\text{DC,max.}}$: DC Resistance max.; f_{res} : Self Resonant Frequency

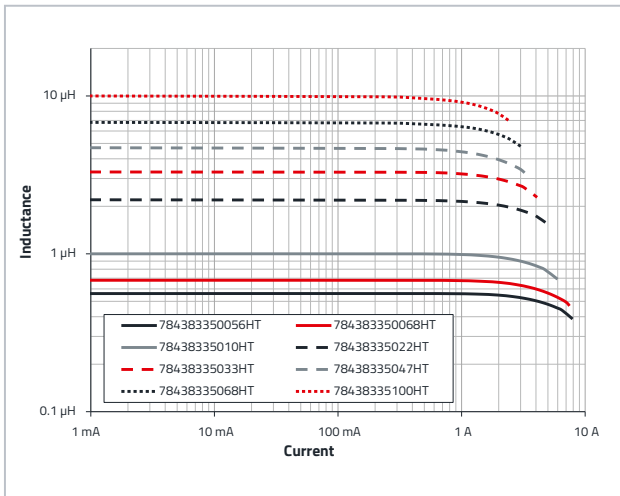
Test Conditions

I_{RP} referring to 40 K self-heating above ambient temperature
 I_{SAT} referring to inductance loss of 30 % typ

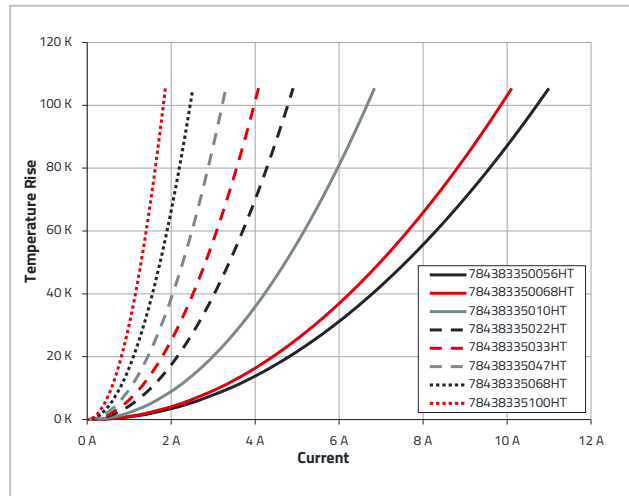
Dimensions: (mm)



Inductance vs. Current



Temperature Rise vs. Current



Size 3020

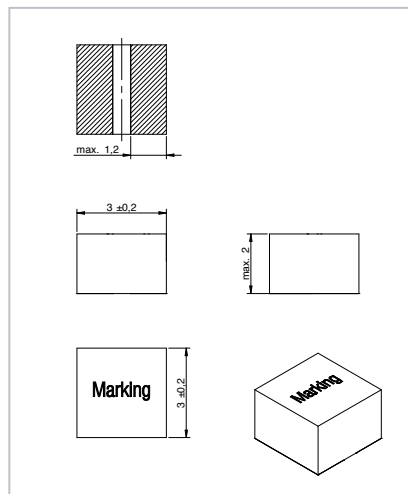
Order Code	L (μH)	Tol. L	$I_{\text{RP},40\text{K}}$ (A)	$I_{\text{SAT},10\%}$ (A)	$I_{\text{SAT},30\%}$ (A)	$R_{\text{DC,max.}}$ ($\text{m}\Omega$)	f_{res} (MHz)
784383360033	0.33	$\pm 30\%$	8.7	5.45	10.5	17	140
784383360047	0.47		7.55	5.4	9.8	22	99
784383360068	0.68		6.75	4.1	8.1	27	85
78438336010	1	$\pm 20\%$	6.15	3.25	6.5	32	67
78438336012	1.2		5.65	3.05	6	36	57
78438336015	1.5		5.35	2.95	5.85	39	51
78438336022	2.2		3.6	2.75	5.55	80	42
78438336033	3.3		2.9	2.85	5.35	114	39
78438336047	4.7		2.4	2.4	5.15	158	30
78438336068	6.8		2.15	1.85	3.65	193	22
78438336100	10		1.65	1.55	3	322	18

L: Inductance; $I_{\text{RP},40\text{K}}$: Performance Rated Current; $I_{\text{SAT},10\%}$: Saturation Current @ 10%; $I_{\text{SAT},30\%}$: Saturation Current @ 30%; $R_{\text{DC,max.}}$: DC Resistance max.; f_{res} : Self Resonant Frequency

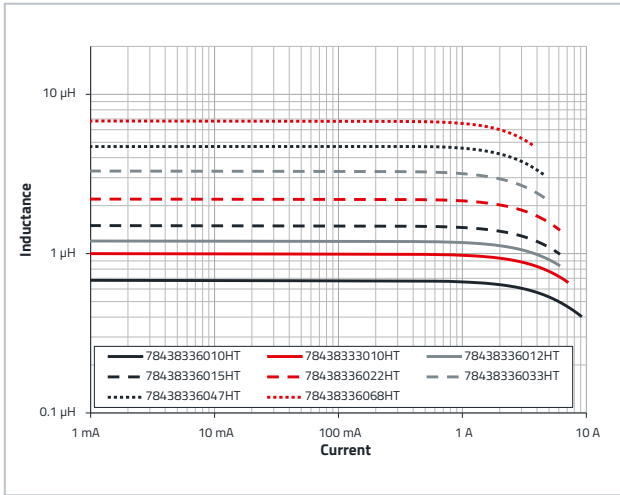
Test Conditions

I_{RP} referring to 40 K self-heating above ambient temperature
 I_{SAT} referring to inductance loss of 30 % typ

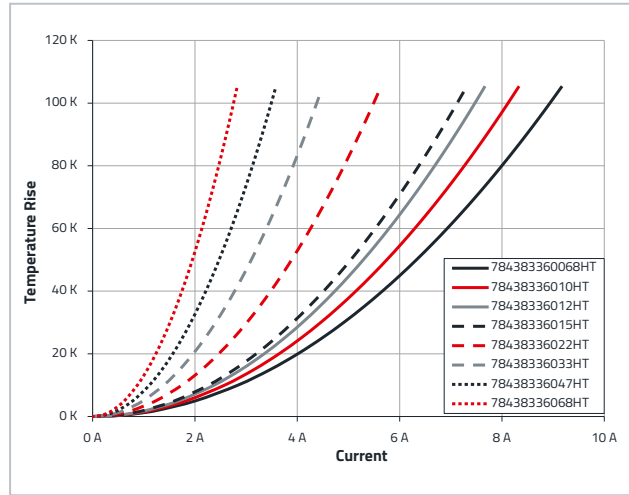
Dimensions: (mm)



Inductance vs. Current



Temperature Rise vs. Current



Size 4012

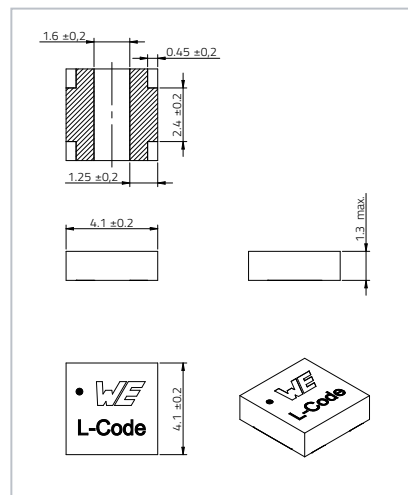
Order Code	L (μH)	Tol. L	I _{RP,40K} (A)	I _{SAT,10%} (A)	I _{SAT,30%} (A)	R _{DC,max.} (mΩ)	f _{RES} (MHz)
7843835400033	0.033	±30%	33.5	19	40	1.1	682
7843835400068	0.068		27	18	38	1.9	374

L: Inductance; I_{RP,40K}: Performance Rated Current; I_{SAT,10%}: Saturation Current @ 10%; I_{SAT,30%}: Saturation Current @ 30%; R_{DC,max.}: DC Resistance max.; f_{res}: Self Resonant Frequency

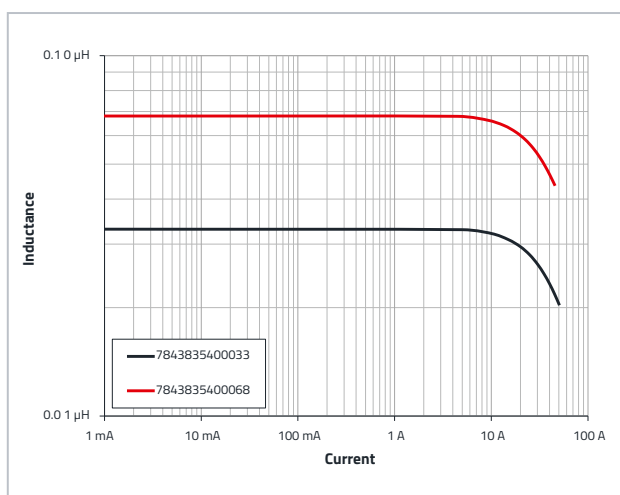
Test Conditions

I_{RP} referring to 40 K self-heating above ambient temperature
I_{SAT} referring to inductance loss of 30 % typ

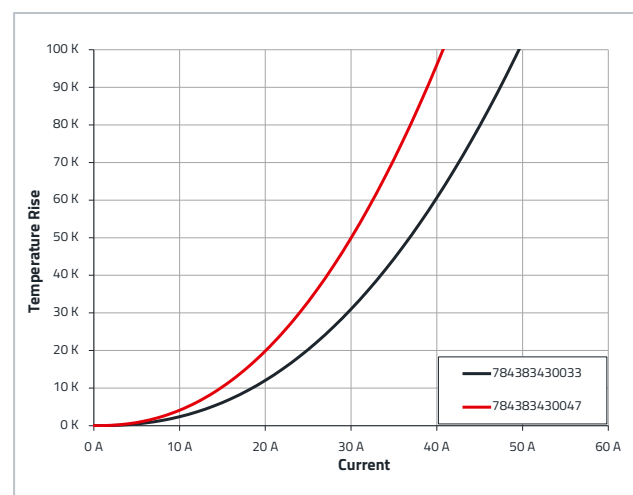
Dimensions: (mm)



Inductance vs. Current



Temperature Rise vs. Current



Size 4020

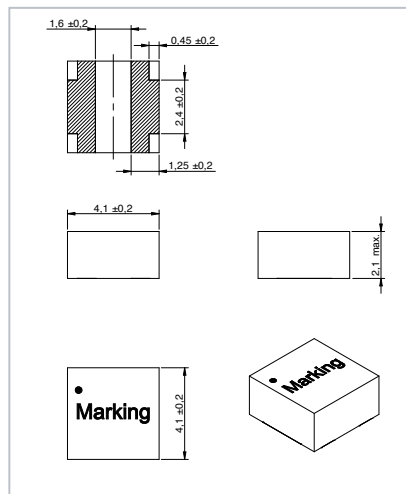
Order Code	L (μH)	Tol. L	$I_{\text{RP,40K}}$ (A)	$I_{\text{SAT,10\%}}$ (A)	$I_{\text{SAT,30\%}}$ (A)	$R_{\text{DC,max.}}$ ($\text{m}\Omega$)	f_{res} (MHz)
784383560033	0.33	$\pm 30\%$	14.95	7.95	16.7	7.2	115
784383560056	0.56		13.65	6.9	14.7	8.4	85
784383560068	0.68		13.15	5.8	12.7	9	75
78438356010	1	$\pm 20\%$	10.1	5.3	11.5	15	55
78438356012	1.2		8.9	5.55	11.2	18	52
78438356015	1.5		8.6	4.8	10.2	19	48
78438356018	1.8		6.8	4.35	8.7	30	40
78438356022	2.2		6.2	4.05	7.9	35	34
78438356033	3.3		5.15	3.55	7.1	48	26
78438356047	4.7		4	3.05	5.75	76	22
78438356056	5.6		3.85	2.65	5.5	81	20

L: Inductance; $I_{\text{RP,40K}}$: Performance Rated Current; $I_{\text{SAT,10\%}}$: Saturation Current @ 10%; $I_{\text{SAT,30\%}}$: Saturation Current @ 30%; $R_{\text{DC,max.}}$: DC Resistance max.; f_{res} : Self Resonant Frequency

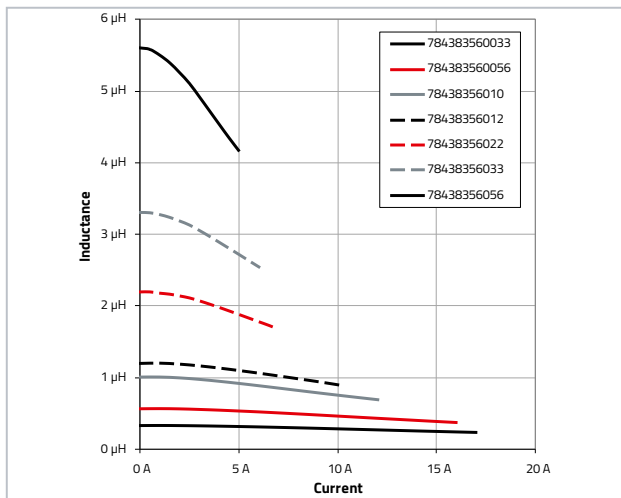
Test Conditions

I_{RP} referring to 40 K self-heating
above ambient temperature
 I_{SAT} referring to inductance loss of 30 % typ

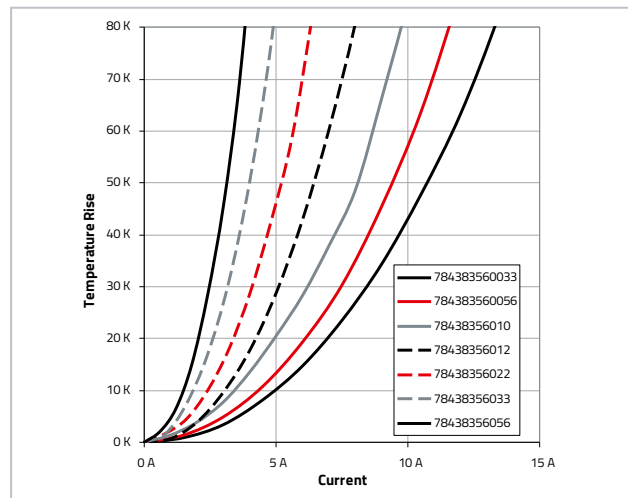
Dimensions: (mm)



Inductance vs. Current



Temperature Rise vs. Current



Size 4030

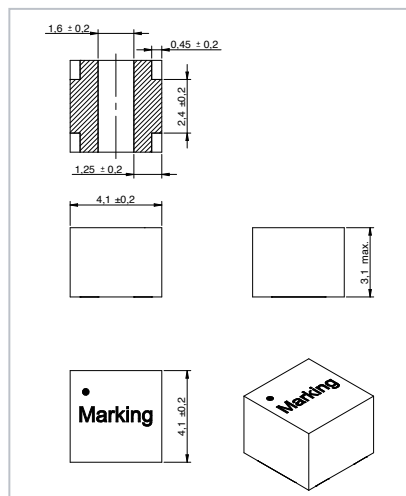
Order Code	L (μH)	Tol. L	$I_{\text{RP,40K}}$ (A)	$I_{\text{SAT,10\%}}$ (A)	$I_{\text{SAT,30\%}}$ (A)	$R_{\text{DC,max.}}$ ($\text{m}\Omega$)	f_{res} (MHz)
78438357010	1	$\pm 20\%$	10.25	6.2	12.5	13.5	59
78438357012	1.2		9.4	5.55	11.6	15.5	51
78438357015	1.5		8.2	5.55	11	20	48
78438357018	1.8		7.9	5.05	10.3	21	42
78438357022	2.2		7.1	4.6	9.2	26	35
78438357033	3.3		6.1	3.3	7	33.5	26
78438357047	4.7		5.1	4.15	8.2	44	24
78438357056	5.6		4.7	3.9	8.1	51	21
78438357068	6.8		3.75	3.5	7.2	74	19.5
78438357082	8.2		3.45	3.35	6.8	86	17
78438357100	10		3.05	3	5.95	110	15

L: Inductance; $I_{\text{RP,40K}}$: Performance Rated Current; $I_{\text{SAT,10\%}}$: Saturation Current @ 10%; $I_{\text{SAT,30\%}}$: Saturation Current @ 30%; $R_{\text{DC,max.}}$: DC Resistance max.; f_{res} : Self Resonant Frequency

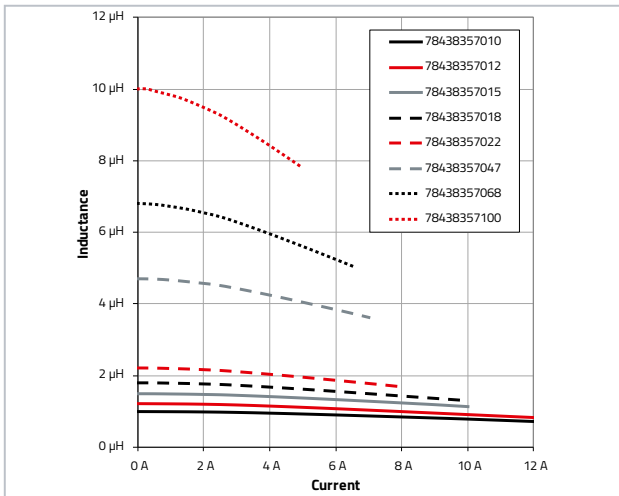
Test Conditions

I_{RP} referring to 40 K self-heating
above ambient temperature
 I_{SAT} referring to inductance loss of 30 % typ

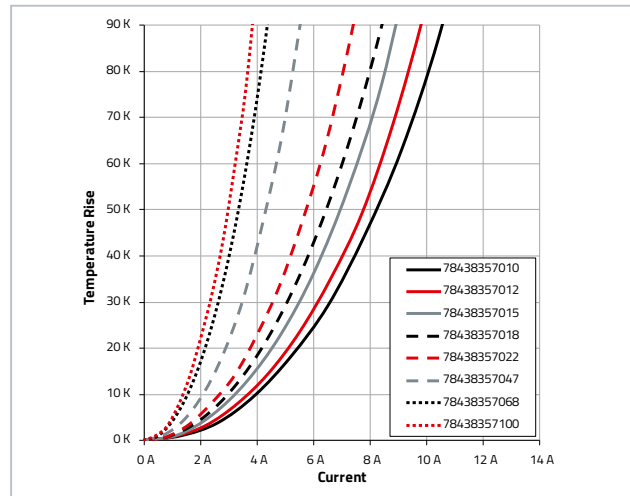
Dimensions: (mm)



Inductance vs. Current



Temperature Rise vs. Current



Size 5020

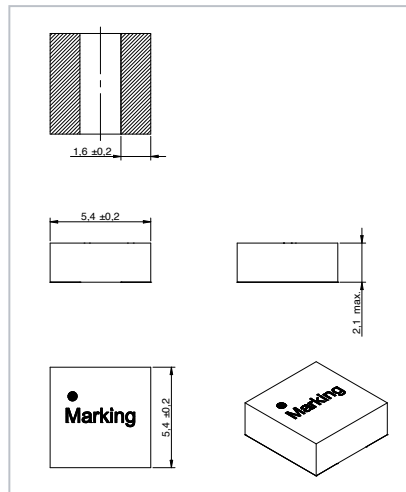
Order Code	L (μH)	Tol. L	I _{RP,40K} (A)	I _{SAT,10%} (A)	I _{SAT,30%} (A)	R _{DC,max.} (mΩ)	f _{res} (MHz)
784383660082	0.82	±20%	13.25	7.1	15.3	9.6	53.5
78438366010	1		11.1	6.25	14	13.1	50
78438366015	1.5		8.45	5.85	13.2	21.3	35
78438366022	2.2		7.4	5.35	12	27.3	31.5
78438366033	3.3		6.1	4.4	9.7	38.4	23
78438366047	4.7		4.65	3.5	7.7	63	20

L: Inductance; I_{RP,40K}: Performance Rated Current; I_{SAT,10%}: Saturation Current @ 10%; I_{SAT,30%}: Saturation Current @ 30%; R_{DC,max.}: DC Resistance max.; f_{res}: Self Resonant Frequency

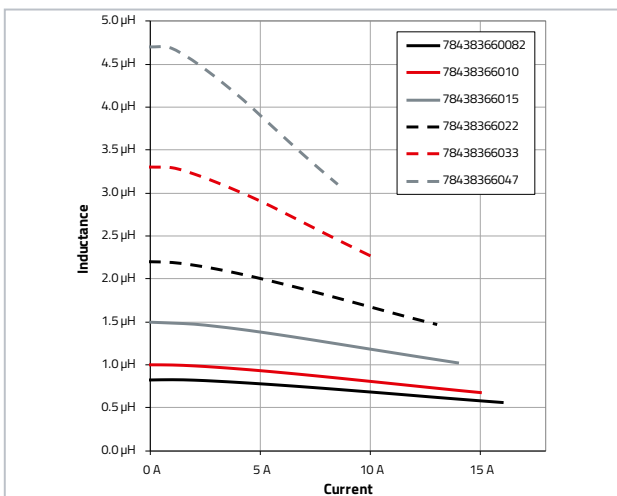
Test Conditions

I_{RP} referring to 40 K self-heating above ambient temperature
I_{SAT} referring to inductance loss of 30 % typ

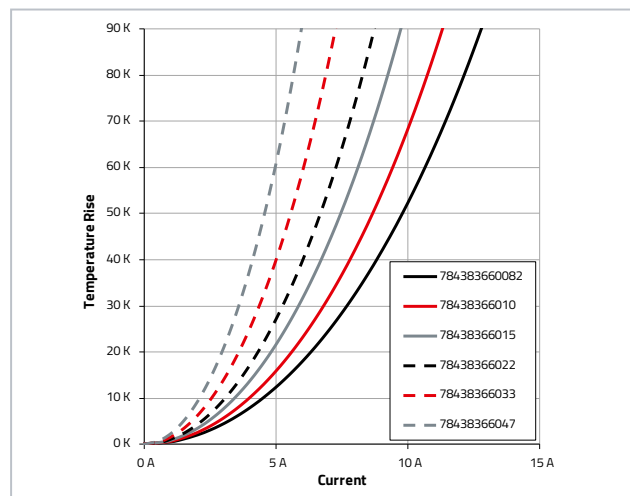
Dimensions: (mm)



Inductance vs. Current



Temperature Rise vs. Current



Size 5030

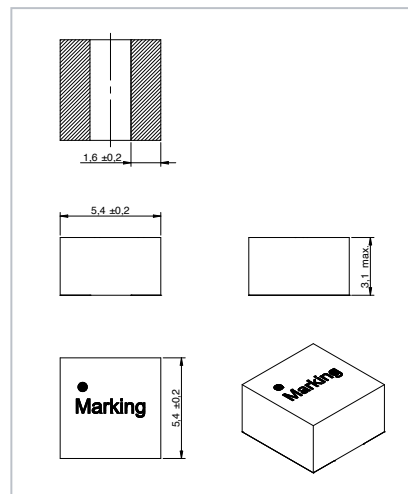
Order Code	L (μH)	Tol. L	$I_{\text{RP,40K}}$ (A)	$I_{\text{SAT,10\%}}$ (A)	$I_{\text{SAT,30\%}}$ (A)	$R_{\text{DC,max}}$ (m Ω)	f_{res} (MHz)
78438367010	1	$\pm 20\%$	11.85	5.95	13.1	11.5	44.5
78438367022	2.2		9.8	4.55	10.2	16.1	28
78438367033	3.3		8	4.35	10	23	22
78438367047	4.7		6.45	3.35	6.5	34.5	18.5
78438367068	6.8		5.3	3.7	7.7	48.3	15.5
78438367082	8.2		4.85	3.25	6.6	57.5	13
78438367100	10		4.3	3.25	6.6	70.2	13

L: Inductance; $I_{\text{RP,40K}}$: Performance Rated Current; $I_{\text{SAT,10\%}}$: Saturation Current @ 10%; $I_{\text{SAT,30\%}}$: Saturation Current @ 30%; $R_{\text{DC,max}}$: DC Resistance max.; f_{res} : Self Resonant Frequency

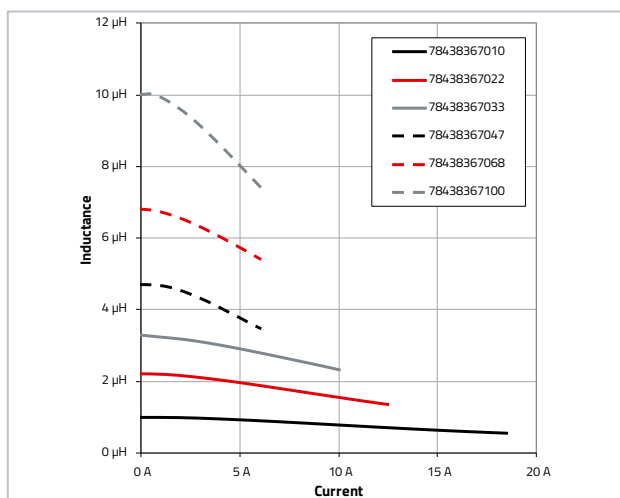
Test Conditions

I_{RP} referring to 40 K self-heating above ambient temperature
 I_{SAT} referring to inductance loss of 30 % typ

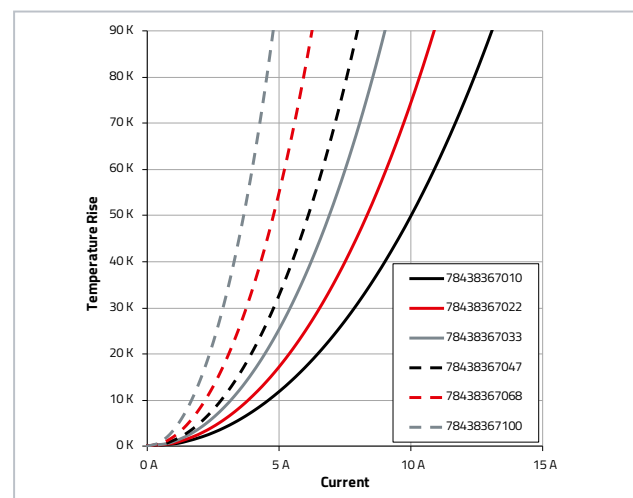
Dimensions: (mm)



Inductance vs. Current



Temperature Rise vs. Current

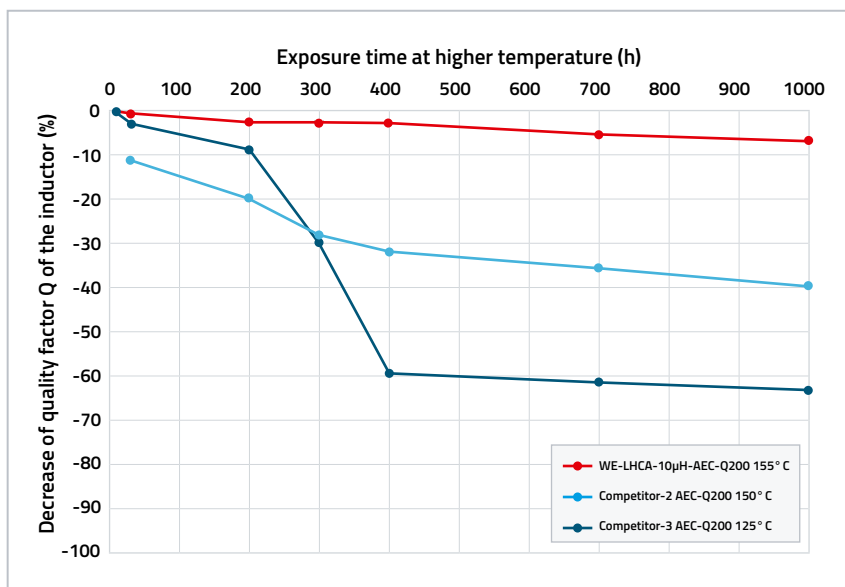


WE-LHCA

DESIGNED TO AVOID THERMAL AGING DEGRADATION

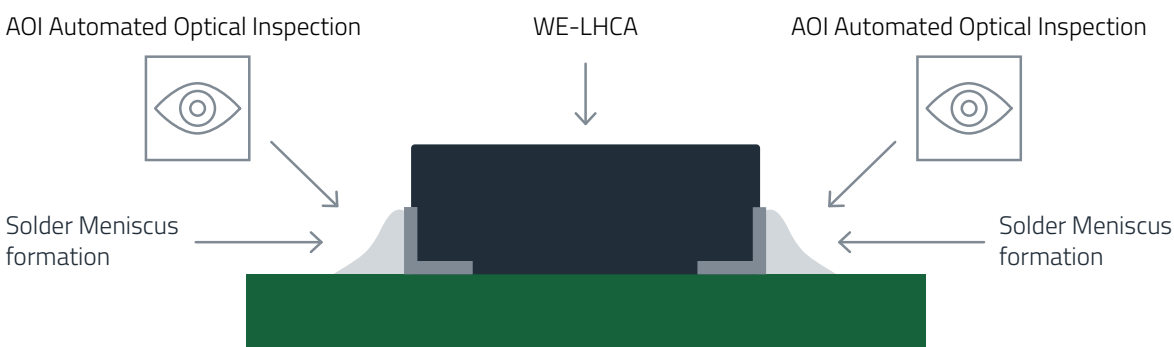
Thermal aging is crucial for power electronic system reliability. Degradation effects on magnetic properties, material integrity, and efficiency when continuously exposed to high temperatures are critical to ensure long-term system reliability.

Recognizing the crucial role of temperature stability in power electronics, Würth Elektronik eiSos has developed the WE-LHCA series which is free of thermal aging. This innovative solution ensures enhanced reliability and efficiency in demanding applications, aligning with the evolving needs of the industry for resilient and high performance passive components.



High quality solder connection

The robust mechanical construction of the WE-LHCA with an elevated lead frame supports the Automated Optical Inspection (AOI) for a high level of automated production.



Available sizes

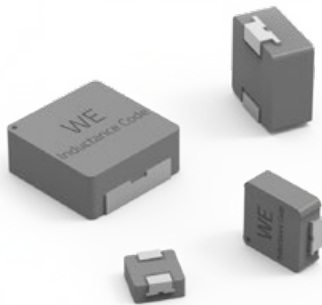
Size	Real Dimensions (mm)	Footprint (mm)	Profile/Height (mm)
7030	6.95 x 6.6 x 2.8	7 x 7	2.8
1040	10.85 x 10 x 3.8	10 x 10	3.8
1365	13.45 x 12.6 x 6.3	13 x 13	6.3
1770	17.45 x 16.95 x 6.8	17 x 17	6.8



Learn more about thermal aging in the application note on molded power inductors.

WE-LHCA

LOW PROFILE HIGH CURRENT INDUCTOR



Characteristics

- Shielded construction
- Low profile
- Distributed air gap in iron alloy powder
- Wide Operating temperature range from -55 °C up to +155 °C

Applications

- DC/DC for high current power supplies
- Start-Stop systems
- Infotainment systems
- Power distribution modules
- HVAC systems
- On-Board charger

NEW!

Size 7030

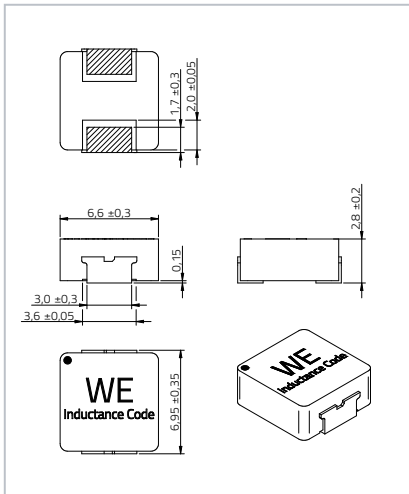
Order Code	L (μH)	Tol. L	I _{SAT} (A)	I _{RP,40K} (A)	R _{DC typ.} (mΩ)	R _{DC max.} (mΩ)	f _{res} (MHz)
7843734600047	0.47	±20%	26	13.8	3.8	4.5	90.6
7843734600056	0.56		21.9	13.4	4.2	4.8	73
7843734600068	0.68		17.7	12.4	4.7	5.5	60
784373460010	1		19.2	11.6	6.3	7.6	52
784373460015	1.5		16	9	10.3	12.4	40.1
784373460022	2.2		12	7.5	15	16.5	29.7
784373460033	3.3		11.4	6.3	21	25	25.6
784373460047	4.7		9.3	5.6	27	33	24.1
784373460056	5.6		8	4.9	35	40.5	22.7
784373460068	6.8		7.7	4.5	41	46.5	18.2
784373460082	8.2		5.5	4.1	50	58	14.7
784373460100	10		6	3.7	61	72	14.1
784373460150	15		4.8	3	96	108	11.3
784373460220	22		4.5	2.5	163	174	10.5

L: Inductance; Tol. L: Inductance (Tol.); I_{SAT}: Saturation Current; I_{RP,40K}: Performance Rated Current; R_{DC typ.}: DC Resistance; R_{DC max.}: DC Resistance max.; f_{res}: Self Resonant Frequency

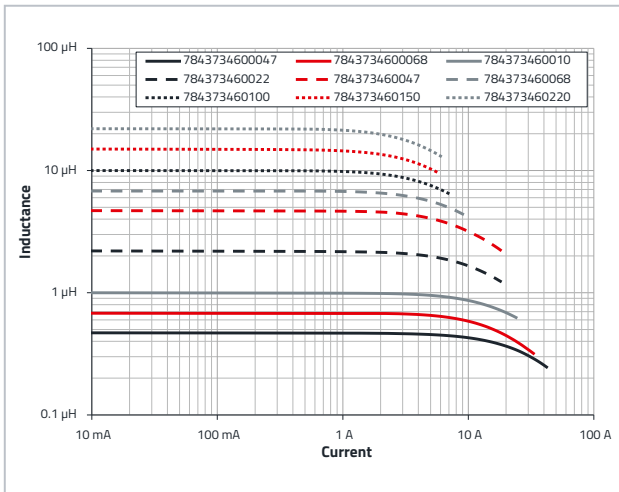
Test Conditions

I_{RP} referring to 40 K self-heating above ambient temperature
 I_{SAT} referring to inductance loss of 30 % typ

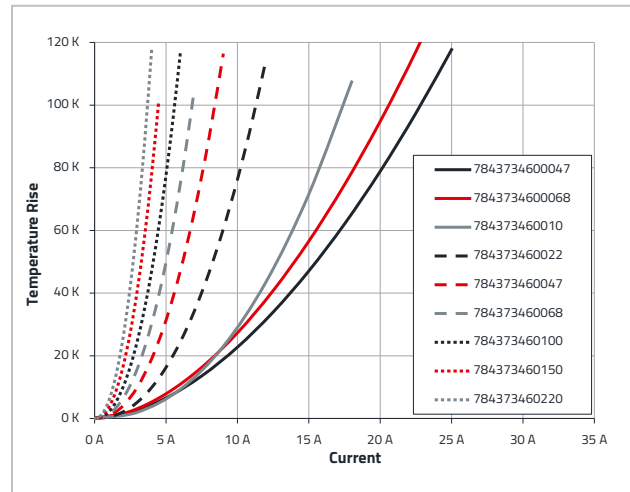
Dimensions: (mm)



Inductance vs. Current



Temperature Rise vs. Current



Size 1040

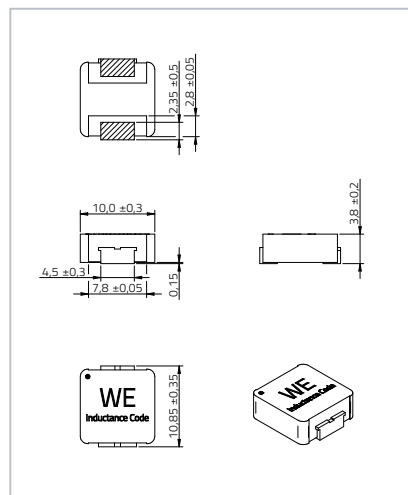
Order Code	L (μH)	Tol. L	I_{SAT} (A)	$I_{\text{RP,40K}}$ (A)	$R_{\text{DC typ.}}$ ($\text{m}\Omega$)	$R_{\text{DC max.}}$ ($\text{m}\Omega$)	f_{res} (MHz)
784373680010	1	±20%	33.8	24.5	2.7	3.1	40.1
784373680015	1.5		26	19.2	4.2	5	31.7
784373680022	2.2		25.7	13.6	7.8	8.8	26.6
784373680033	3.3		22.1	11.8	9.9	11.8	21.2
784373680047	4.7		16	10.9	13.5	15.3	14.7
784373680068	6.8		13.2	9.5	19	22.4	13
784373680082	8.2		13.1	8.7	25	27.5	12
784373680100	10		12.2	7.8	28	32	11.7
784373680150	15		9.9	6.8	42	48.5	8.3
784373680220	22		7.5	5.2	59	68	7.8
784373680330	33		6.5	4.1	87	100	6.2
784373680470	47		5.85	3.4	140	165	5.1
784373680560	56		5.5	2.9	170	200	4.4
784373680680	68		4.85	2.6	215	250	4.1

L: Inductance; Tol. L: Inductance (Tol.); I_{SAT} : Saturation Current; $I_{\text{RP,40K}}$: Performance Rated Current; $R_{\text{DC typ.}}$: DC Resistance; $R_{\text{DC max.}}$: DC Resistance max.; f_{res} : Self Resonant Frequency

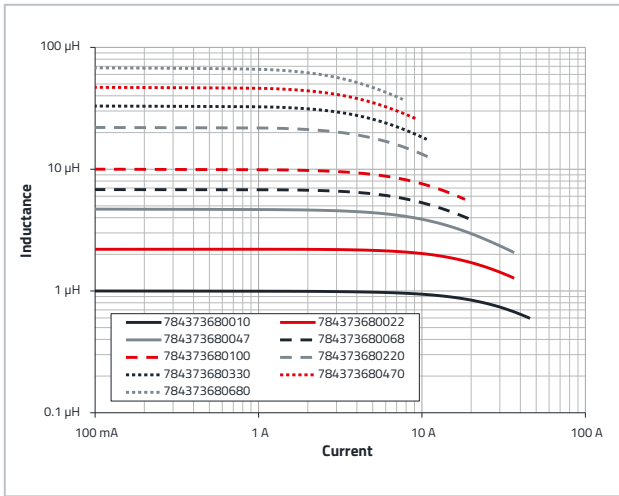
Test Conditions

I_{RP} referring to 40 K self-heating above ambient temperature
 I_{SAT} referring to inductance loss of 30 % typ

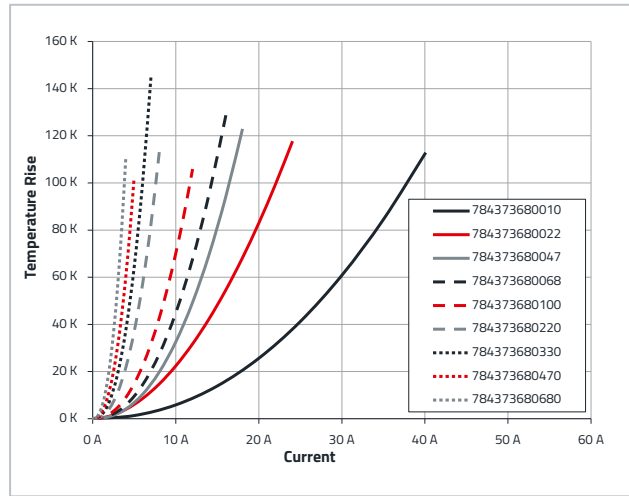
Dimensions: (mm)



Inductance vs. Current



Temperature Rise vs. Current



Size 1365

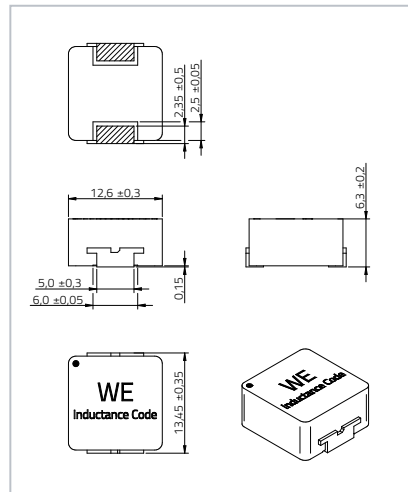
Order Code	L (μH)	Tol. L	I_{SAT} (A)	$I_{\text{RP,40K}}$ (A)	$R_{\text{DC typ.}}$ ($\text{m}\Omega$)	$R_{\text{DC max.}}$ ($\text{m}\Omega$)	f_{res} (MHz)
784373865010	1	±20%	44.8	30.5	1.7	2.3	48
784373865015	1.5		32.1	26	2.2	2.5	30.7
784373865022	2.2		33.35	22	4	4.5	24.6
784373865033	3.3		27.1	19	5	5.8	18.2
784373865047	4.7		21.35	15.5	7.9	8.6	15.2
784373865056	5.6		23.1	13	9.3	10	15.2
784373865068	6.8		23.3	12	10	11.5	13
784373865082	8.2		20.2	11.6	12	13.8	11.3
784373865100	10		15.9	10.4	15	17.8	8.9
784373865150	15		11.45	8.8	24.5	28	8.1
784373865220	22		10.75	7.1	35	39.5	6
784373865330	33		8.45	5.7	60	69	6
784373865470	47		6.5	5.1	72	85	4.6

L: Inductance; Tol. L: Inductance (Tol.); I_{SAT} : Saturation Current; $I_{\text{RP,40K}}$: Performance Rated Current; $R_{\text{DC typ.}}$: DC Resistance ; $R_{\text{DC max.}}$: DC Resistance max.; f_{res} : Self Resonant Frequency

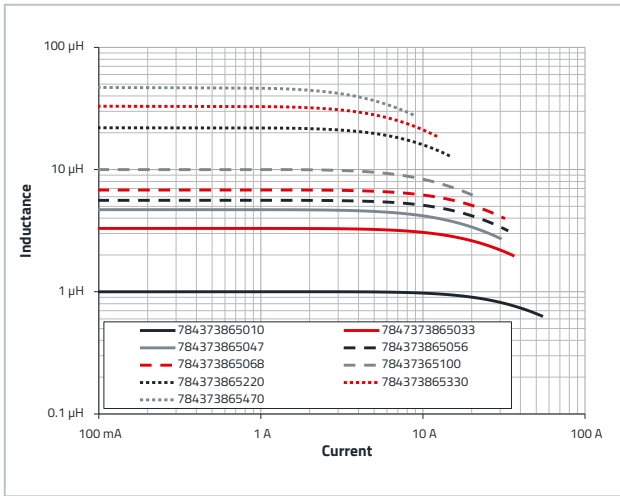
Test Conditions

I_{RP} referring to 40 K self-heating above ambient temperature
 I_{SAT} referring to inductance loss of 30 % typ

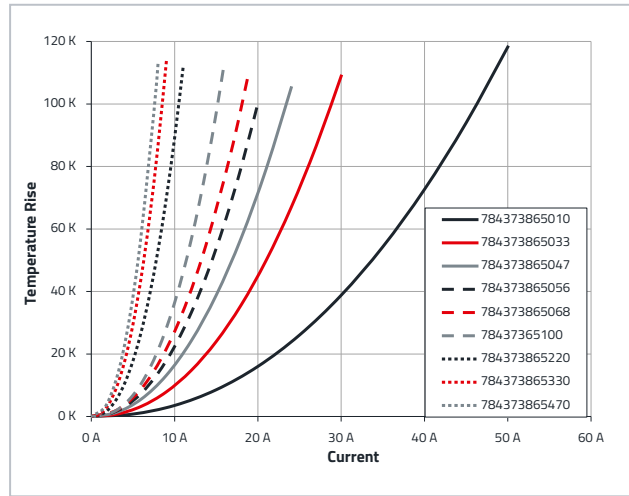
Dimensions: (mm)



Inductance vs. Current



Temperature Rise vs. Current



Size 1770

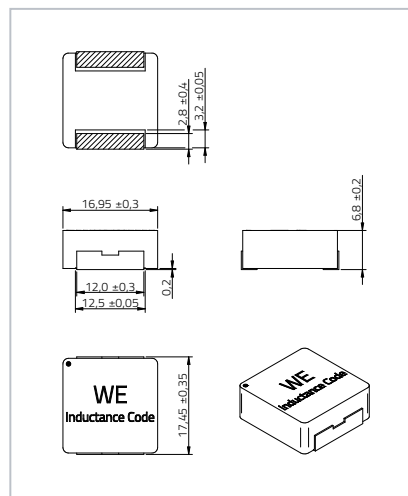
Order Code	L (μH)	Tol. L	I_{SAT} (A)	$I_{\text{RP,40K}}$ (A)	$R_{\text{DC typ.}}$ ($\text{m}\Omega$)	$R_{\text{DC max.}}$ ($\text{m}\Omega$)	f_{RES} (MHz)
784373170047	4.7	±20%	39.5	24.5	4.4	5.2	13
784373170056	5.6		40.85	21.5	5.8	6.5	12
784373170068	6.8		33	19.7	7	7.8	9.7
784373170082	8.2		32.1	18.4	8.2	9.2	9.3
784373170100	10		26	16	10	11	7.5
784373170150	15		21.7	12.4	17	21	6.7
784373170220	22		17.15	10.9	22	27	4.9
784373170330	33		15.6	9.1	30	36	3.8
784373170470	47		13.05	7.5	48	55	3.2
784373170560	56		10.3	7.1	52	80	2.6
784373170680	68		8.2	5.9	75	85	2.3
784373170820	82		9.6	4.9	90	105	2.6

L: Inductance; Tol. L: Inductance (Tol.); I_{SAT} : Saturation Current; $I_{\text{RP,40K}}$: Performance Rated Current; $R_{\text{DC typ.}}$: DC Resistance ; $R_{\text{DC max.}}$: DC Resistance max.; f_{RES} : Self Resonant Frequency

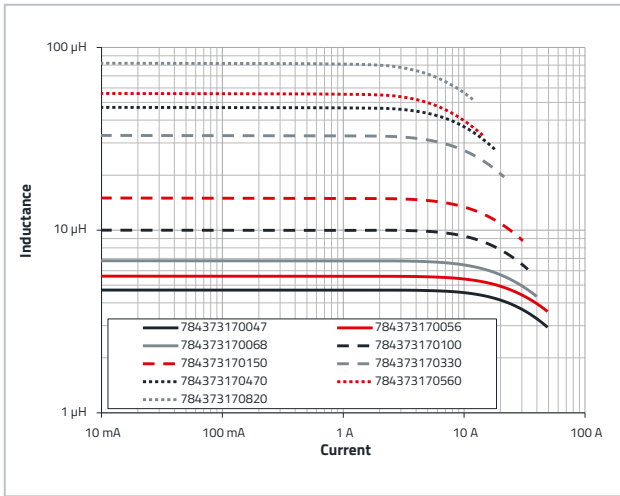
Test Conditions

I_{RP} referring to 40 K self-heating above ambient temperature
 I_{SAT} referring to inductance loss of 30 % typ

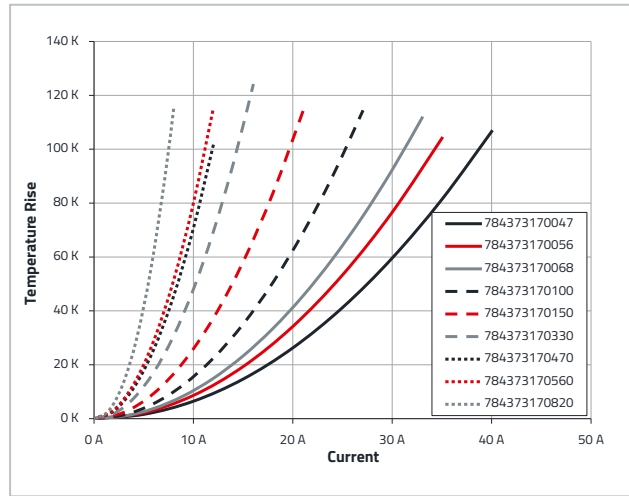
Dimensions: (mm)



Inductance vs. Current



Temperature Rise vs. Current



SMT SHIELDED POWER INDUCTOR



Characteristics

- Size 7332, 7345, 1260: Operating temperature -40 °C up to +125 °C
- Size 1050: Operating temperature -50 °C up to +150 °C
- Magnetically shielded version which results in a low leakage field High storage capacity
- Very low self-losses at high switching frequency's
- Core Material: NiZn
- Wide inductance spectrum available at all sizes
- Wire connection: Welding technology
- AEC-Q200

Applications

- Multimedia applications
- Switching regulators with low operating voltages
- Integrated DC/DC-converter
- Perfect suitable for switching regulators with extremely high efficiency
- Plastic base: Because of the one piece construction these are more suitable for high vibration or shock applications

Size 7332

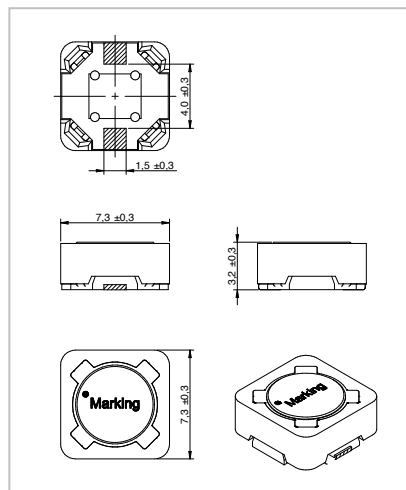
Order Code	L (μH)	Tol. L	I _R (A)	I _{SAT} (A)	R _{DC typ.} (mΩ)	R _{DC max.} (mΩ)	f _{res} (MHz)
784778010	1	±20%	3.5	7	30	36	183.7
784778022	2.2		3.1	5	42	50	110.5
784778033	3.3		2.65	3.7	54	65	71.3
784778047	4.7		2.4	3.1	66	79	52
784778068	6.8		2.3	2.5	79	94	40.7
784778082	8.2		2.2	2.4	86	103	36.9
784778100	10		1.85	2.2	105	126	34.1
784778220	22		1.55	1.6	156	187	17.2
784778470	47		1.1	1.05	290	348	13.5
784778101	100		0.72	0.75	600	720	9.7
784778221	220		0.48	0.5	1350	1620	6.1
784778471	470		0.3	0.35	2740	3300	3.9
784778102	1000		0.23	0.25	6000	7200	2.5

L: Inductance; Tol. L: Inductance (Tol.); I_R: Rated Current; I_{SAT}: Saturation Current; R_{DC typ.}: DC Resistance ; R_{DC max.}: DC Resistance max.; f_{res}: Self Resonant Frequency

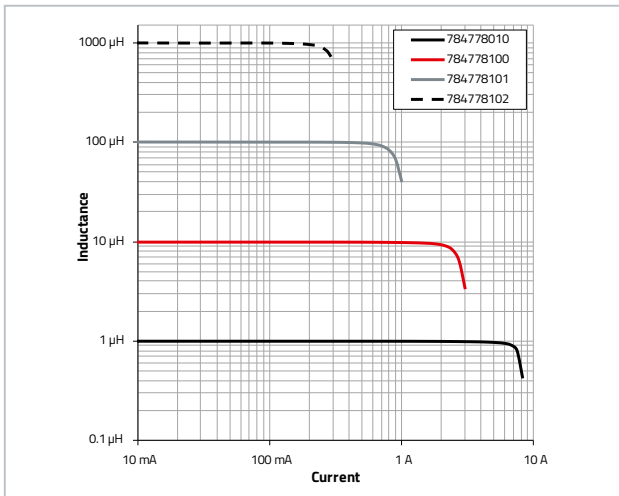
Test Conditions

I_R referring to 40 K self-heating above ambient temperature
 I_{SAT} referring to inductance loss of 10 % typ

Dimensions: (mm)



Inductance vs. Current



Size 7345

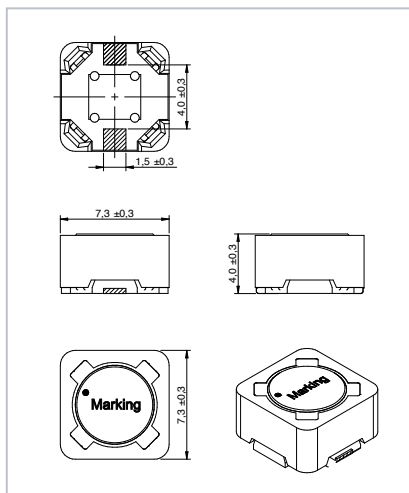
Order Code	L (μH)	Tol. L	I_R (A)	I_{SAT} (A)	$R_{DC\ typ.}$ (m Ω)	$R_{DC\ max.}$ (m Ω)	f_{res} (MHz)
784777010	1	$\pm 20\%$	3.7	8	32	38.5	195
784777022	2.2		2.7	5.25	51	61	95.2
784777033	3.3		2.5	4.7	58	70	87.5
784777047	4.7		2.35	3.7	70	84	64.7
784777068	6.8		2.2	3.2	83	98	47.3
784777082	8.2		2	2.8	97.5	117	36.7
784777100	10		1.9	2.6	105	126	32.5
784777220	22		1.4	1.8	180	215	18.5
784777470	47		1.15	1.25	250	300	10
784777101	100		0.72	0.8	390	470	7.5
784777221	220		0.5	0.55	945	1135	3.9
784777331	330		0.4	0.45	1560	1872	4.2
784777471	470		0.35	0.38	2270	2720	2.9
784777102	1000		0.25	0.28	4800	5750	2

L: Inductance; Tol. L: Inductance (Tol.); I_R : Rated Current; I_{SAT} : Saturation Current; $R_{DC\ typ.}$: DC Resistance; $R_{DC\ max.}$: DC Resistance max.; f_{res} : Self Resonant Frequency

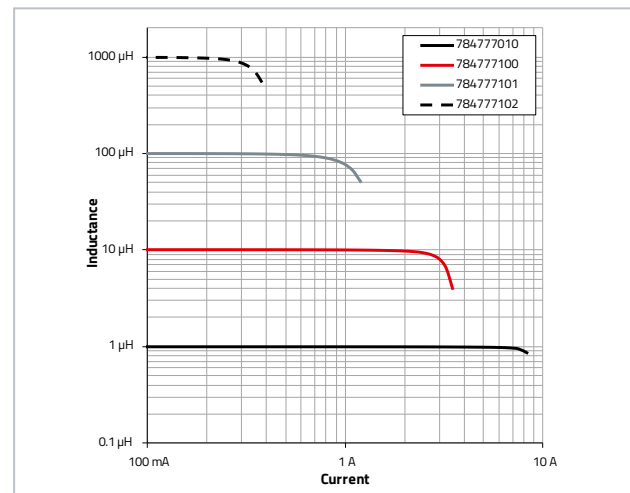
Test Conditions

I_R referring to 50 K self-heating above ambient temperature
 I_{SAT} referring to inductance loss of 10 % typ

Dimensions: (mm)



Inductance vs. Current



Size 1050

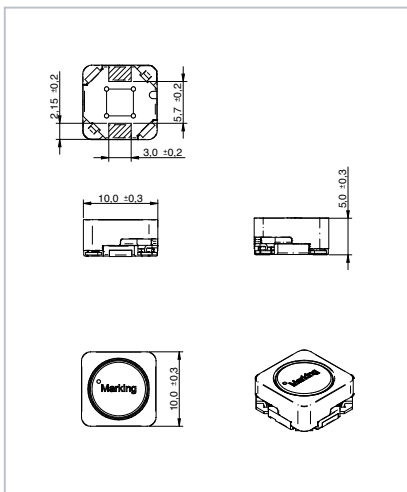
Order Code	L (μH)	Tol. L	I_R (A)	I_{SAT} (A)	$R_{DC\ typ.}$ ($\text{m}\Omega$)	$R_{DC\ max.}$ ($\text{m}\Omega$)	f_{res} (MHz)
7847714033	3.3	$\pm 20\%$	7.11	9.4	12	15	29
7847714047	4.7		6.81	8.2	14	17	25
7847714100	10		5.12	5.6	26	32	16.75
7847714220	22		3.13	3.7	63	75	9.6
7847714330	33		2.92	3	79	95	8.4
7847714470	47		2.26	2.45	123	148	6.4
7847714680	68		1.85	1.9	147	176.4	5.53
7847714101	100		1.43	1.6	245	294	4.4
7847714221	220		1.05	1.2	590	708	2.9
7847714331	330		0.9	1	750	900	2.4

L: Inductance; Tol. L: Inductance (Tol.); I_R : Rated Current; I_{SAT} : Saturation Current; $R_{DC\ typ.}$: DC Resistance ; $R_{DC\ max.}$: DC Resistance max.; f_{res} : Self Resonant Frequency

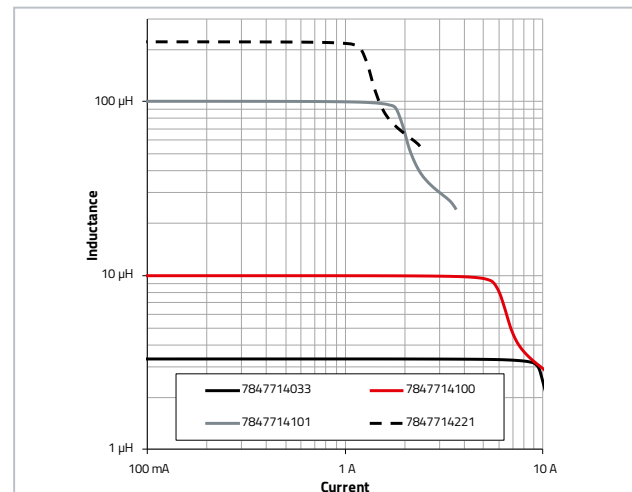
Test Conditions

I_R referring to 50 K self-heating above ambient temperature
 I_{SAT} referring to inductance loss of 10 % typ

Dimensions: (mm)



Inductance vs. Current



Size 1260

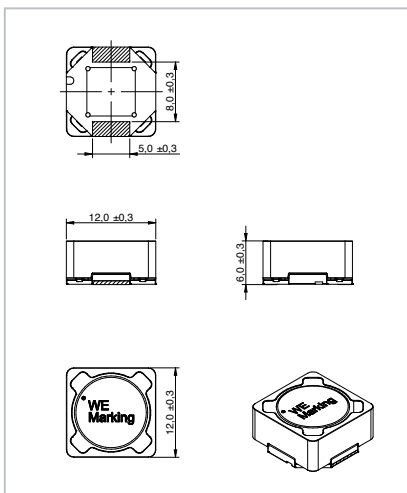
Order Code	L (μH)	Tol. L	I_R (A)	I_{SAT} (A)	$R_{DC\ typ.}$ ($m\Omega$)	$R_{DC\ max.}$ ($m\Omega$)	f_{res} (MHz)
784771010	1	$\pm 20\%$	9	16.5	7	8.5	139.4
784771022	2.2		7.2	10.5	10.5	12.5	82.7
784771033	3.3		6.5	9	12	14.5	68.1
784771047	4.7		6.2	8	14.5	17.5	49.8
784771068	6.8		5.5	6	18	21.5	25.5
784771082	8.2		5.05	5.5	20	24	25.2
784771100	10		5	5.25	22	26.5	22.3
784771220	22		3.2	3.5	33.5	40	14.9
784771330	33		2.8	2.9	52	62.5	11.5
784771470	47		2.3	2.5	64	77	10.1
784771680	68		1.8	2	115	138	8
784771101	100		1.5	1.7	145	174	6.5
784771221	220		0.99	1.1	290	348	3.9
784771331	330		0.8	0.9	495	594	3.3
784771471	470		0.65	0.75	588	706	2.9
784771102	1000		0.48	0.53	1420	1705	1.9

L: Inductance; Tol. L: Inductance (Tol.); I_R : Rated Current; I_{SAT} : Saturation Current; $R_{DC\ typ.}$: DC Resistance; $R_{DC\ max.}$: DC Resistance max.; f_{res} : Self Resonant Frequency

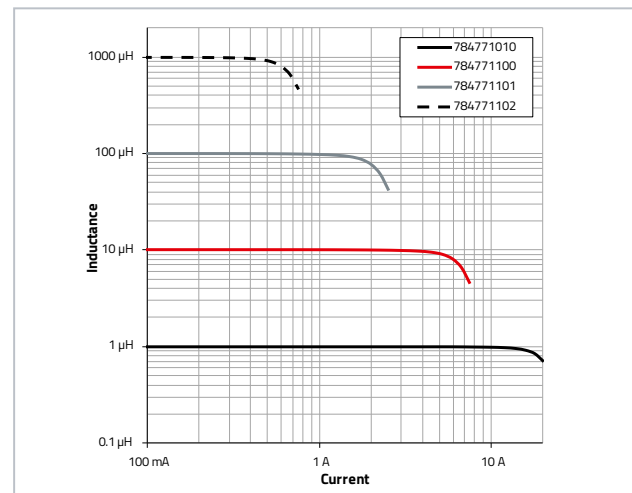
Test Conditions

I_R referring to 40 K self-heating above ambient temperature
 I_{SAT} referring to inductance loss of 10 % typ

Dimensions: (mm)



Inductance vs. Current



WE-PD

SMT SHIELDED POWER INDUCTOR



Characteristics

- Operating temperature: -40 °C up to +125 °C
- Ultra low RDC and RAC due to optimally used winding space
- Core material: NiZn
- AEC-Q200

Applications

- Air conditioning, climate control units, ventilation, fan controls
- Small motor drivers & wiper control systems
- Car infotainment
- Switching regulators / DC/DC converter with extremely high efficiency (>95%)

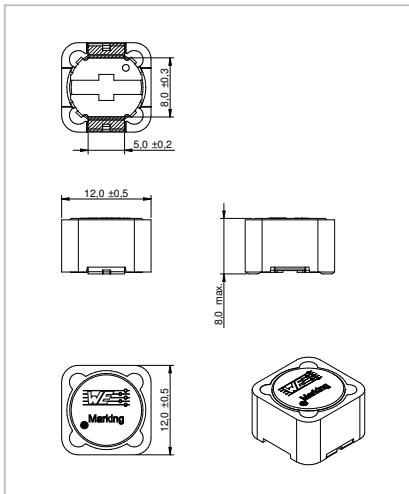
Size 1280

Order Code	L (μH)	Tol. L	I _{RP,40K} (A)	I _{SAT,10%} (A)	I _{SAT,30%} (A)	R _{DC typ.} (mΩ)	R _{DC max.} (mΩ)	f _{res} (MHz)
744770315	1500	±20%	0.8	0.57	0.74	1430	1720	1.2
74477001	1.2	±30%	16.2	21	27	4.6	7	45
744770015	1.5	±30%	19	19	24.5	3.2	5	42
74477002	2.4	±30%	13.5	15	19.5	6.3	9	41
74477003	3.5	±30%	12	12.5	16.2	8	11	37.5
74477004	4.7	±30%	11	11	14.3	9	12	31.2
74477005	5.6	±30%	10	10	13	10.5	13.5	24
74477006	6.1	±30%	9.5	9.5	12.2	11	14	25
74477007	7.6	±30%	9.3	8.5	11	11.5	15	21.3
74477010	10	±20%	8.2	7.5	9.7	15	20	18
744770112	12	±20%	7.8	6.5	8.4	16	21	16
744770115	15	±20%	7.4	6	7.8	18	23	14.5
744770118	18	±20%	6.3	5.4	7	25	32	13.2
744770122	22	±20%	5.8	5	6.5	29	35	12
744770127	27	±20%	5.6	4.3	5.6	31	38	10
744770133	33	±20%	4.7	3.9	5.05	44	53	8.5
744770139	39	±20%	4.5	3.6	4.65	47	56	8.2
744770147	47	±20%	4.25	3.3	4.3	53	64	7.9
744770156	56	±20%	4	3	3.9	59	71	7.1
744770168	68	±20%	3.5	2.7	3.5	76	90	6.4
744770182	82	±20%	3.3	2.5	3.25	86	105	3.5
74477020	100	±20%	2.85	2.4	3.1	117	140	5.2
744770215	150	±20%	2.55	1.8	2.35	145	175	3
744770218	180	±20%	2.25	1.7	2.2	182	220	4.2
744770222	220	±20%	2	1.5	1.95	230	275	3.8
744770233	330	±20%	1.65	1.2	1.55	345	410	3
744770247	470	±20%	1.45	1.05	1.35	450	540	2.6

Order Code	L (μH)	Tol. L	$I_{\text{RP,40K}}$ (A)	$I_{\text{SAT,10\%}}$ (A)	$I_{\text{SAT,30\%}}$ (A)	$R_{\text{DC typ.}}$ (m Ω)	$R_{\text{DC max.}}$ (m Ω)	f_{res} (MHz)
744770256	560	$\pm 20\%$	1.25	0.95	1.2	570	680	2.5
744770268	680	$\pm 20\%$	1.1	0.85	1.1	780	930	2.2
744770282	820	$\pm 20\%$	1.05	0.8	1.04	870	1050	2
74477030	1000	$\pm 20\%$	0.98	0.7	0.91	980	1180	1.8

L: Inductance; Tol. L: Inductance (Tol.); $I_{\text{RP,40K}}$: Performance Rated Current; $I_{\text{SAT,10\%}}$: Saturation Current @ 10%; $I_{\text{SAT,30\%}}$: Saturation Current @ 30%; $R_{\text{DC typ.}}$: DC Resistance ; $R_{\text{DC max.}}$: DC Resistance max.; f_{res} : Self Resonant Frequency

Dimensions: (mm)

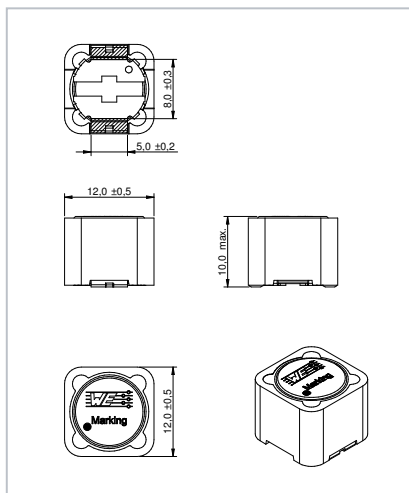


Size 1210

Order Code	L (μH)	Tol. L	$I_{\text{RP,40K}}$ (A)	$I_{\text{SAT,10\%}}$ (A)	$I_{\text{SAT,30\%}}$ (A)	$R_{\text{DC typ.}}$ (m Ω)	$R_{\text{DC max.}}$ (m Ω)	f_{res} (MHz)
7447709001	1	$\pm 20\%$	18.7	25	31	4	6	120
7447709002	2.2		16.3	20	25	5	6	65
7447709003	3.5		14.7	16.5	20.3	6	9	45
7447709004	4.7		13.1	13	16	7	11	38
7447709006	6.8		11.7	12.8	15.7	9	14	23
7447709100	10		9.5	10.5	13	13	21	21
7447709150	15		7.4	8	9.8	21	26	17
7447709220	22		7	6.5	8	23	28	10
7447709270	27		6.1	5.8	7.1	30	40	8
7447709330	33		5.5	5.5	6.8	37	45	8.5
7447709390	39		5	5	6.2	44	56	6
7447709470	47		4.9	4.5	5.5	46	60	6.5
7447709680	68		3.9	3.6	4.4	69	89	5.5
7447709820	82		3.35	3.4	4.2	90.5	105	4.5
7447709101	100		3.2	3.1	3.8	100	110	4.3
7447709151	150		2.6	2.7	3.3	151	200	3.5
7447709221	220		2.25	2.2	2.7	193	300	2.7
7447709271	270		2	2.1	2.6	248	330	2.5
7447709331	330		1.6	1.7	2.1	363	430	2
7447709471	470		1.45	1.5	1.85	437	560	1.8
7447709681	680		1.2	1.3	1.6	660	825	1.5
7447709821	820		1.05	1.1	1.35	815	1000	1.2
7447709102	1000	1	1	1.25	930	1200	1	
7447709152	1500	0.71	0.8	1	1800	2300	0.9	
7447709222	2200	0.53	0.75	0.92	3250	3750	0.66	

L: Inductance; Tol. L: Inductance (Tol.); $I_{\text{RP,40K}}$: Performance Rated Current; $I_{\text{SAT,10\%}}$: Saturation Current @ 10%; $I_{\text{SAT,30\%}}$: Saturation Current @ 30%; $R_{\text{DC typ.}}$: DC Resistance; $R_{\text{DC max.}}$: DC Resistance max.; f_{res} : Self Resonant Frequency

Dimensions: (mm)



Learn more in our online catalog
www.we-online.com/we-pd-automotive

WE-PD2SA

SMT POWER INDUCTOR



Characteristics

- Operating temperature: -50 °C up to +150 °C
- Magnetically shielded version of the WE-PD2A, which results in a low leakage field
- Pad compatible with the WE-PD2A size 7850
- High saturation current due to the self-centering shielding ring construction
- AEC-Q200

Applications

- Switching regulators with low operating voltage
- Multimedia applications

Size 7850

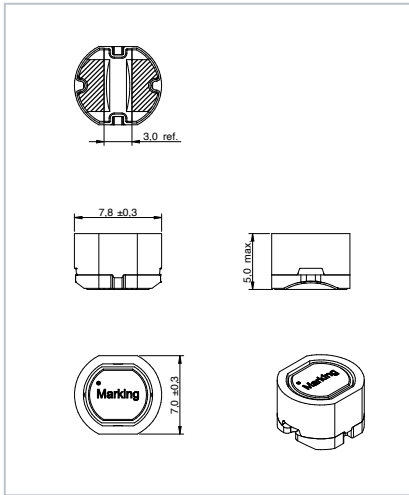
Order Code	L (μH)	Tol. L	I _R (A)	I _{SAT} (A)	R _{DC max.} (mΩ)
784787012	1.2	±25%	4.85	6	13
784787027	2.7		4.35	4.5	17
784787039	3.9		3.8	4	20
784787047	4.7		3.3	3.6	29
784787068	6.8		3	3	33
784787082	8.2		2.7	2.8	39
784787100	10		2.6	2.6	43
784787120	12		2.45	2.4	52
784787150	15		2.3	2.1	60
784787180	18		2.15	1.9	78
784787220	22		1.83	1.7	103
784787330	33		1.48	1.3	161
784787470	47		1.25	1.15	243
784787680	68		1.12	1	290
784787820	82		1.04	0.9	328
784787101	100		0.95	0.87	467
784787121	120		0.73	0.8	643
784787151	150		0.71	0.7	719
784787181	180		0.68	0.62	794
784787221	220	0.67	0.58	876	

L: Inductance; Tol. L: Inductance (Tol.); I_R: Rated Current; I_{SAT}: Saturation Current; R_{DC max.}: DC Resistance max.

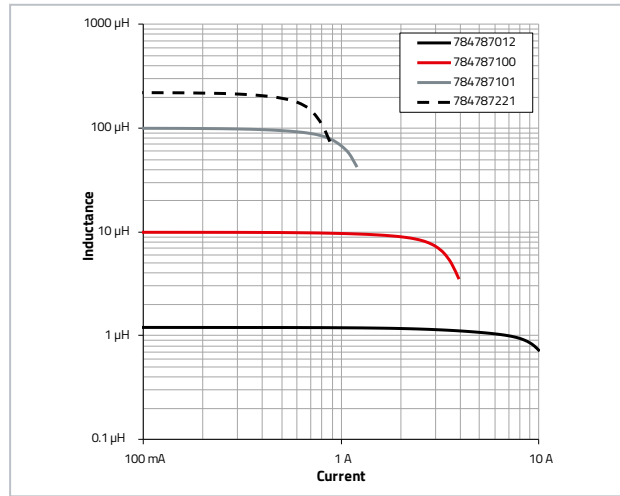
Test Conditions

I_R referring to 40 K self-heating above ambient temperature
 I_{SAT} referring to inductance loss of 15 % typ

Dimensions: (mm)



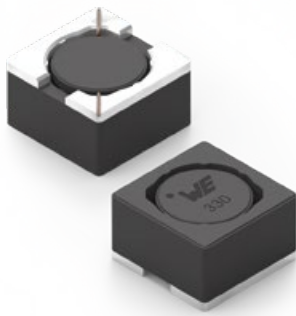
Inductance vs. Current



Learn more in our online catalog
www.we-online.com/we-pd2sa

WE-HEPA

HIGH EFFICIENCY POWER CHOKE



Characteristics

- Operating temperature: -40 °C up to +150 °C
- Magnetically shielded
- AEC-Q-200 Grade 1

Applications

- Filter applications
- Led headlights (DC/DC-Converter, Control system)
- Electric vehicle (Battery Management System, Inverter, DC/DC)
- Car navigation systems

NEW!

Size 5030

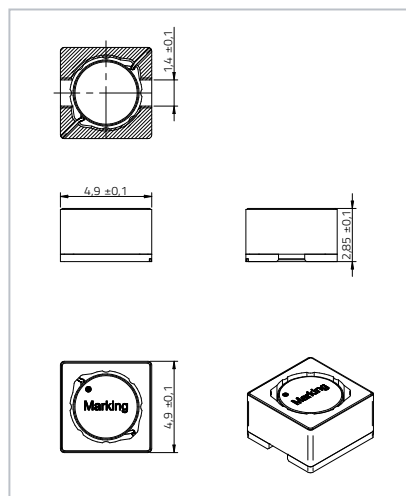
Order Code	L (μH)	Tol. L	I _R (A)	I _{SAT,10%} (A)	R _{DC max.} (mΩ)	f _{res} (MHz)
78408053003	3.3	±25%	2	2.3	75	100
78408053004	4.7	±20%	1.4	2.1	100	85
78408053006	6.8	±20%	1.3	2	125	60
78408053100	10	±20%	1.2	1.3	140	37
78408053150	15	±20%	1.1	1.2	200	22
78408053220	22	±20%	0.9	0.8	270	20
78408053330	33	±20%	0.8	0.7	415	15

L: Inductance; Tol. L: Inductance (Tol.); I_R: Rated Current; I_{SAT,10%}: Saturation Current @ 10%; R_{DC max.}: DC Resistance max.; f_{res}: Self Resonant Frequency

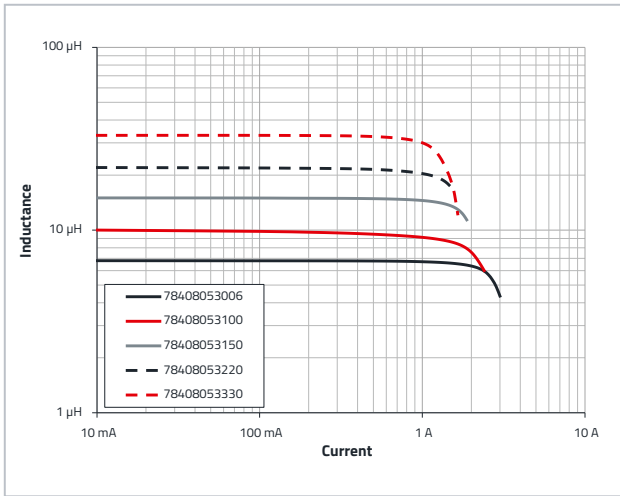
Test Conditions

I_R referring to 40 K self-heating above ambient temperature
 I_{SAT} referring to inductance loss of 10% typ

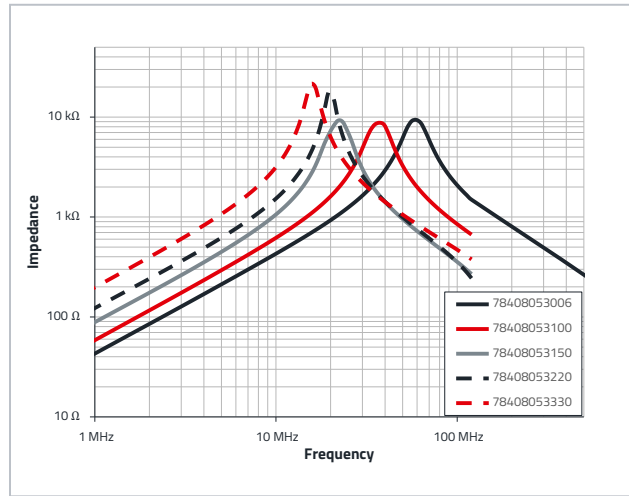
Dimensions: (mm)



Inductance vs. Current



Impedance vs. Frequency



Size 6030

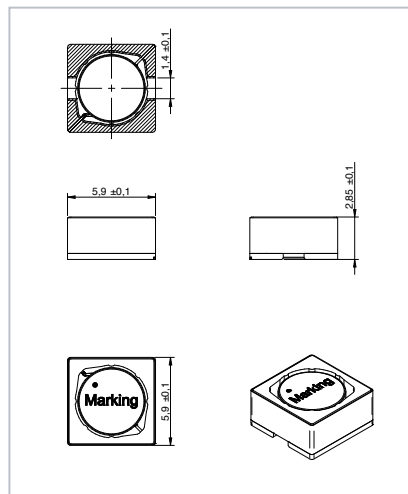
Order Code	L (μH)	Tol. L	I_R (A)	$I_{\text{SAT},10\%}$ (A)	$R_{\text{DC max.}}$ ($\text{m}\Omega$)	f_{res} (MHz)
78408063004	4.7	$\pm 20\%$	2	2.5	90	75
78408063006	6.8		1.8	2.2	100	40
78408063100	10		1.35	1.6	140	27
78408063150	15		1.2	1.4	180	20
78408063220	22		1	1.1	220	18
78408063330	33		0.9	0.9	285	15
78408063470	47		0.8	0.8	385	11
78408063680	68		0.6	0.7	535	9
78408063101	100		0.5	0.5	850	8

L: Inductance; Tol. L: Inductance (Tol.); I_R : Rated Current; $I_{\text{SAT},10\%}$: Saturation Current @ 10%; $R_{\text{DC max.}}$: DC Resistance max.; f_{res} : Self Resonant Frequency

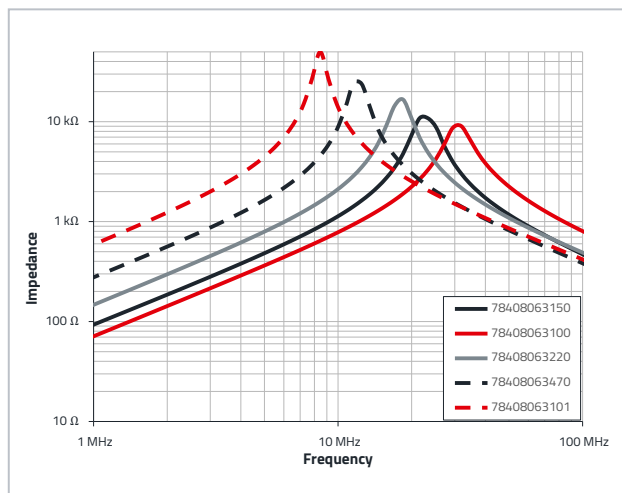
Test Conditions

I_R referring to 40 K self-heating above ambient temperature
 I_{SAT} referring to inductance loss of 10% typ

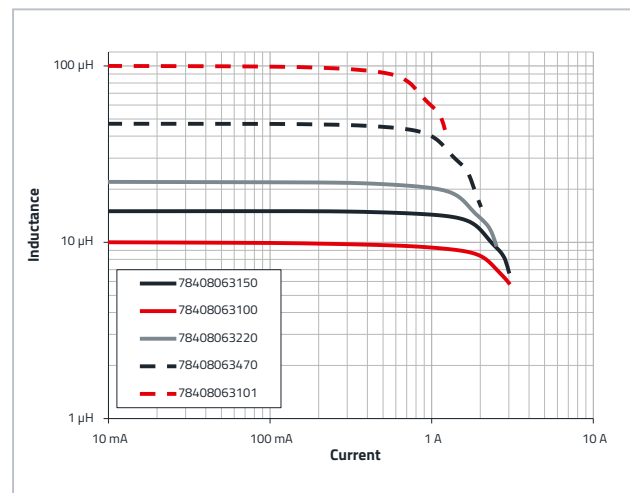
Dimensions: (mm)



Inductance vs. Current

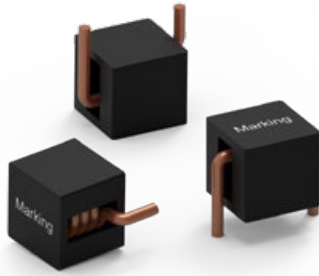


Impedance vs. Frequency



WE-HCIT

THT HIGH CURRENT INDUCTOR



Characteristics

- Operating temperature: -40 °C up to +150 °C
- Magnetically shielded
- Low RDC
- Soft saturation up to 27 A
- High rated current up to 28 A
- THT design
- AEC-Q200

Applications

- DC/DC converter for infotainment / communication systems
- EMI suppression for motors (seating / electrical mirrors / windshield)
- Power applications / battery management systems

Size 1008

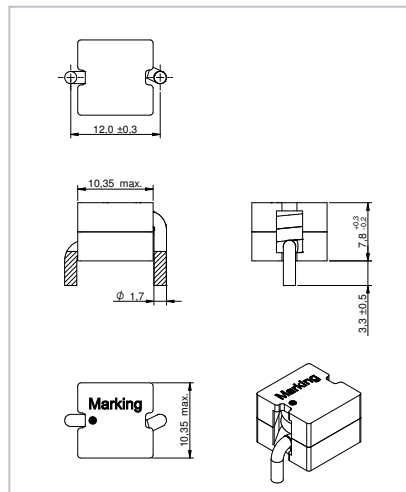
Order Code	L (μH)	Tol. L	I _R (A)	I _{SAT} (A)	R _{DC} (mΩ)	f _{res} (MHz)
78432018003	0.3	±20%	28.2	27	0.44	320

L: Inductance; Tol. L: Inductance (Tol.); I_R: Rated Current; I_{SAT}: Saturation Current; R_{DC}: DC Resistance; f_{res}: Self Resonant Frequency

Test Conditions

I_R referring to 50 K self-heating above ambient temperature
I_{SAT} referring to inductance loss of 10% typ

Dimensions: (mm)



Size 1010

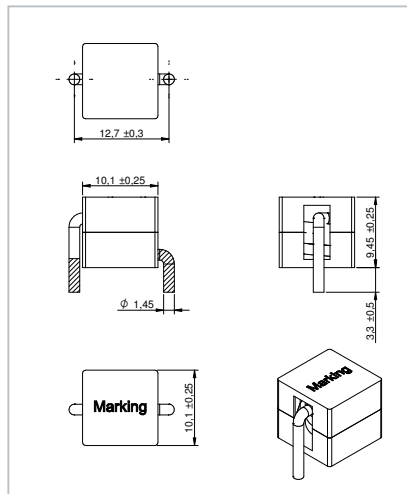
Order Code	L (μH)	Tol. L	I_R (A)	I_{SAT} (A)	R_{DC} ($\text{m}\Omega$)	f_{res} (MHz)
78432010005	0.5	$\pm 20\%$	25.1	25	0.88	250

L: Inductance; Tol. L: Inductance (Tol.); I_R : Rated Current; I_{SAT} : Saturation Current; R_{DC} : DC Resistance; f_{res} : Self Resonant Frequency

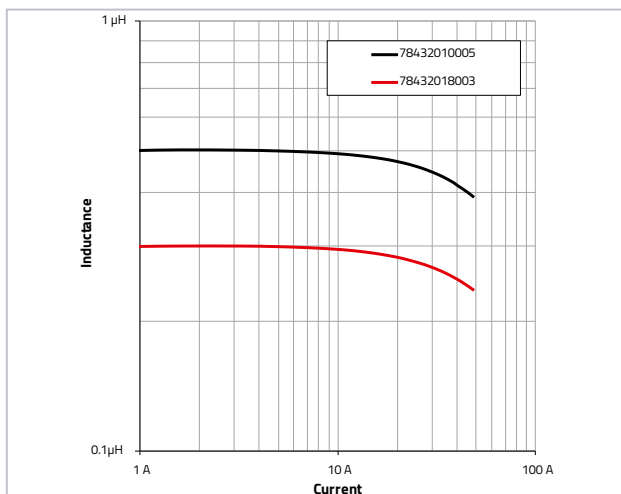
Test Conditions

I_R referring to 50 K self-heating above ambient temperature
 I_{SAT} referring to inductance loss of 10% typ

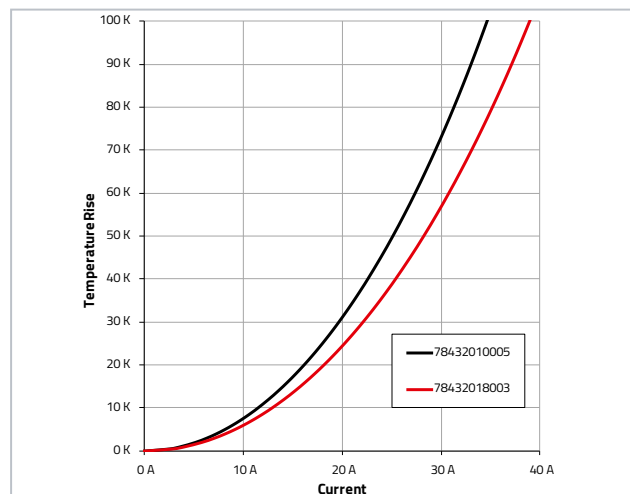
Dimensions: (mm)



Inductance vs. Current



Temperature Rise vs. Current



WE-LQSA

SMD SEMI-SHIELDED POWER INDUCTOR



Characteristics

- Operating temperature: -50 °C up to +150 °C
- Compact design compared to standard power inductors for high density mounting
- Similar sizes and land pattern as WE-LQS
- Robust design qualified with AEC-Q200 Grade 0

Applications

- LED headlights (DC/DC converter, control system)
- Electric vehicles (battery management systems, inverter, DC/DC)
- Car navigation systems
- Keyless entry systems

Shielded construction with magnetic glue

Size 5040

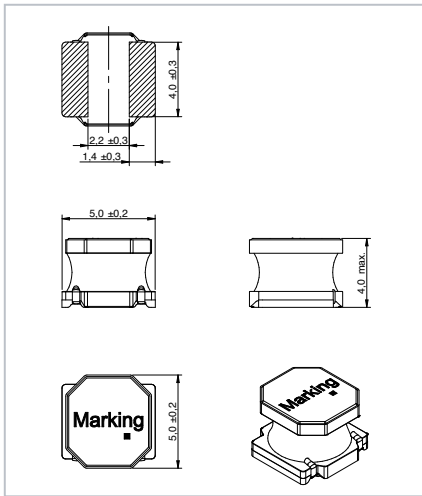
	Order Code	L (μH)	Tol. L	I _R (A)	I _{SAT} (A)	R _{DC max.} (mΩ)	f _{res} (MHz)
	78404054010	1	±30%	5.7	7.4	14	187
	78404054015	1.5	±20%	5.22	6	18	137
	78404054022	2.2		4.54	5.3	23	77
	78404054033	3.3		4.06	4.3	29	48
	78404054047	4.7		3.64	3.8	36	43
	78404054068	6.8		3.01	3.2	52	35
	78404054100	10		2.45	2.5	82	26
	78404054150	15		2.01	2.2	108	22
NEW!	78404054220	22		1.75	1.7	155	17
NEW!	78404054330	33		1.43	1.4	226	13
	78404054470	47		1.19	1.2	348	10
	78404054680	68		0.97	0.99	516	9
	78404054101	100		0.82	0.82	720	7
NEW!	78404054151	150		0.67	0.72	972	6.3
NEW!	78404054221	220		0.56	0.55	1680	4.5

L: Inductance; I_R: Rated Current; I_{SAT}: Saturation Current; R_{DC max.}: DC Resistance max.; f_{res}: Self Resonant Frequency

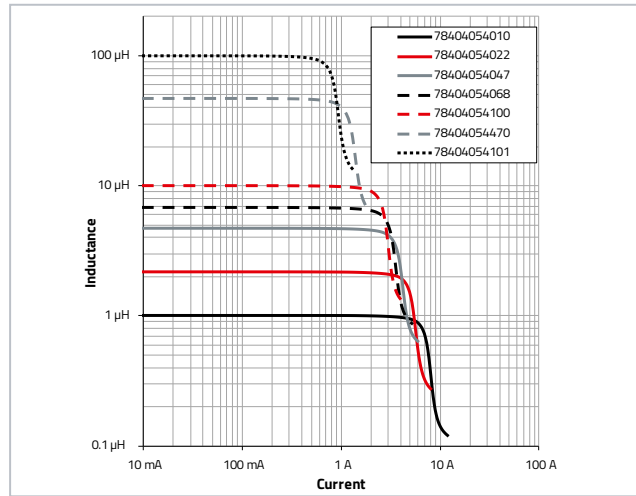
Test Conditions

I_R referring to 50 K self-heating above ambient temperature
 I_{SAT} referring to inductance loss of 30 % typ

Dimensions: (mm)



Inductance vs. Current



Size 6045

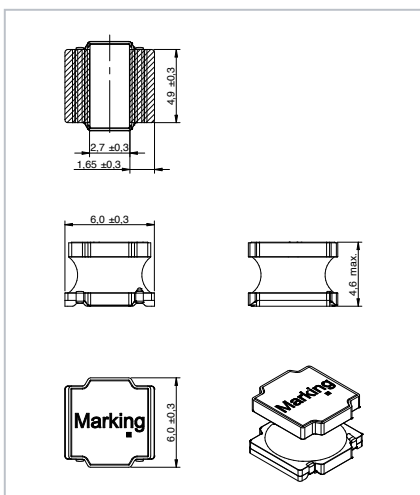
Order Code	L (μH)	Tol. L	I_R (A)	I_{SAT} (A)	$R_{DC\ max.}$ ($m\Omega$)	f_{res} (MHz)
78404064010	1	$\pm 30\%$	6.7	11.5	11	159
78404064015	1.5	$\pm 20\%$	6.1	9.7	13	115
78404064022	2.2		5.3	8.1	17	60
78404064033	3.3		4.1	6.5	28	42
78404064047	4.7		3.7	5.5	34	36
78404064068	6.8		3.3	4.3	42	27
78404064100	10		2.8	3.5	58	22
78404064150	15		2.4	3	88	17
78404064220	22		1.9	2.5	120	15
78404064330	33		1.7	2	168	12
78404064470	47		1.4	1.6	252	10
78404064680	68		1.1	1.4	367	8
78404064101	100		0.9	1.2	532	6

L: Inductance; I_R : Rated Current; I_{SAT} : Saturation Current; $R_{DC\ max.}$: DC Resistance max.; f_{res} : Self Resonant Frequency

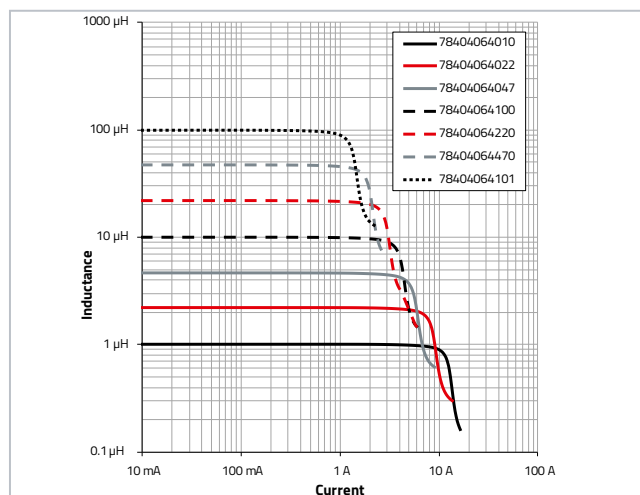
Test Conditions

I_R referring to 50 K self-heating
above ambient temperature
 I_{SAT} referring to inductance loss of 30% typ

Dimensions: (mm)



Inductance vs. Current



Size 8040

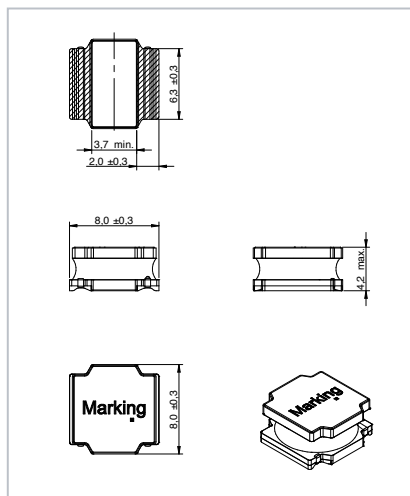
	Order Code	L (μH)	Tol. L	I_R (A)	I_{SAT} (A)	$R_{DC\ max.}$ ($\text{m}\Omega$)	f_{res} (MHz)
NEW!	78404084010	1	$\pm 30\%$	8.2	14.5	10	127
NEW!	78404084015	1.5	$\pm 20\%$	7.7	11.7	12	95
NEW!	78404084022	2.2		7	9.8	15	57
NEW!	78404084033	3.3		5.7	7.5	21	42
NEW!	78404084047	4.7		5.3	6.8	23	35
NEW!	78404084068	6.8		4.9	5.8	29	27
NEW!	78404084100	10		4.35	5	35	23
	78404084101	100		1.45	1.5	348	6.4
	78404084150	15		3.75	3.9	60	17
	78404084220	22		3.2	3.2	85	15
NEW!	78404084330	33		2.6	2.7	117	12
	78404084470	47	2.23	2.18	168	10	
	78404084680	68	1.8	1.82	245	8	

L: Inductance; I_R : Rated Current; I_{SAT} : Saturation Current; $R_{DC\ max.}$: DC Resistance max.; f_{res} : Self Resonant Frequency

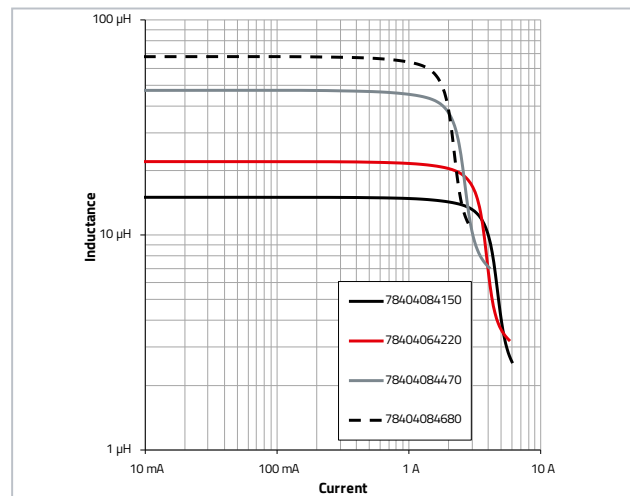
Test Conditions

I_R referring to 50 K self-heating
above ambient temperature
 I_{SAT} referring to inductance loss of 30% typ

Dimensions: (mm)



Inductance vs. Current



WE-PD2A

SMT POWER INDUCTOR



Characteristics

- Size 7850, 1054: Operating temperature: -40 °C up to +125 °C
- Size 4532, 5848: Operating temperature -50 °C up to +150 °C
- Unshielded Power Inductor
- Saturation current up to 15 A
- Low tolerances at high inductance values

Applications

- Integrated DC/DC converter
- Switching regulators with low operating voltage
- Perfectly suitable for switching regulators with extremely high efficiency
- EMI filtering with optimal attenuation in MHz frequency range

Size 4532

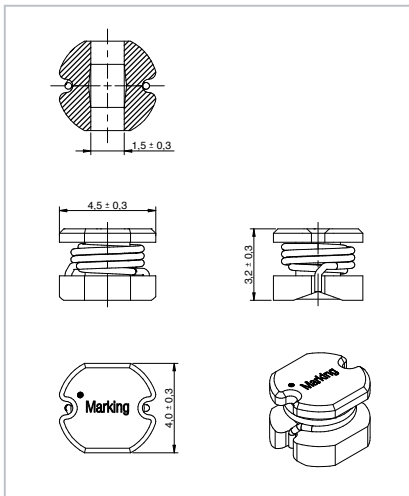
Order Code	L (μ H)	Tol. L	I _R (A)	I _{SAT} (A)	R _{DC max.} (Ω)
7847730	1	±20%	4	5.72	0.049
784773018	1.8	±20%	2.7	3.6	0.064
784773022	2.2	±20%	2.5	3.38	0.071
784773033	3.3	±20%	2	2.88	0.086
784773039	3.9	±20%	1.88	2.57	0.094
784773047	4.7	±20%	1.82	2.46	0.11
784773056	5.6	±20%	1.58	2.43	0.126
784773068	6.8	±20%	1.54	2.1	0.131
784773082	8.2	±20%	1.5	1.8	0.146
78477310	10	±20%	1.45	1.74	0.182
784773112	12	±20%	1.28	1.62	0.21
784773115	15	±20%	1.2	1.46	0.235
784773118	18	±20%	1.1	1.29	0.338
784773122	22	±20%	1	1.22	0.37
784773127	27	±20%	0.94	1	0.522
784773133	33	±10%	0.86	0.9	0.54
784773139	39	±10%	0.77	0.87	0.587
784773147	47	±10%	0.68	0.77	0.844
784773156	56	±10%	0.64	0.75	0.937
784773168	68	±10%	0.56	0.68	1.117

L: Inductance; Tol. L: Inductance (Tol.); I_R: Rated Current; I_{SAT}: Saturation Current; R_{DC max.}: DC Resistance max.

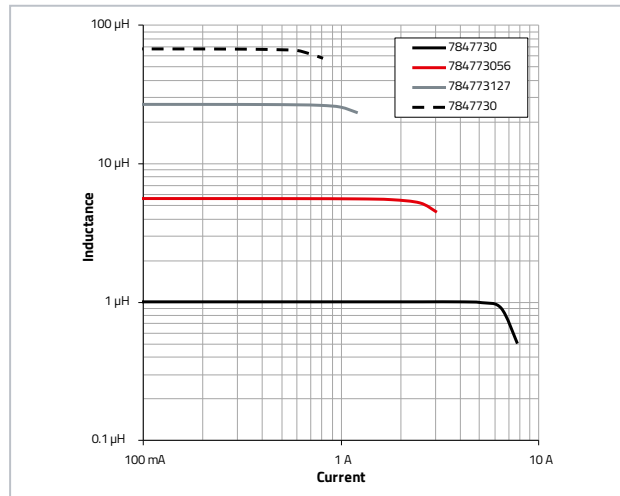
Test Conditions

I_R referring to 40 K self-heating above ambient temperature
 I_{SAT} referring to inductance loss of 10% typ

Dimensions: (mm)



Inductance vs. Current



Size 5848

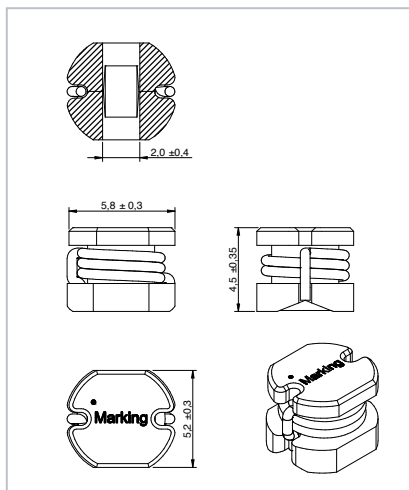
Order Code	L (μH)	Tol. L	I_R (A)	I_{SAT} (A)	$R_{DC\max.}$ (Ω)
784774006	0.6	+40%/-20%	8.2	13.5	0.018
784774022	2.2	$\pm 20\%$	4.6	8.2	0.041
784774027	2.7	$\pm 20\%$	4	8	0.045
784774033	3.3	$\pm 20\%$	3.7	7.5	0.06
784774047	4.7	$\pm 20\%$	3	5.5	0.071
784774068	6.8	$\pm 20\%$	2.4	5	0.082
78477410	10	$\pm 20\%$	2.2	2.5	0.1
784774112	12	$\pm 20\%$	2	1.94	0.11
784774115	15	$\pm 20\%$	1.53	1.9	0.14
784774118	18	$\pm 20\%$	1.45	1.69	0.15
784774122	22	$\pm 20\%$	1.28	1.53	0.18
784774127	27	$\pm 20\%$	1.19	1.4	0.2
784774133	33	$\pm 10\%$	1.09	1.17	0.23
784774139	39	$\pm 10\%$	0.94	1.1	0.32
784774147	47	$\pm 10\%$	0.86	1	0.37
784774156	56	$\pm 10\%$	0.77	0.9	0.42
784774168	68	$\pm 10\%$	0.64	0.86	0.46
784774182	82	$\pm 10\%$	0.6	0.72	0.6
78477420	100	$\pm 10\%$	0.57	0.68	0.65
784774212	120	$\pm 10\%$	0.49	0.63	0.93
784774215	150	$\pm 10\%$	0.46	0.54	1.1
784774218	180	$\pm 10\%$	0.42	0.5	1.38
784774222	220	$\pm 10\%$	0.41	0.47	1.57

L: Inductance; Tol. L: Inductance (Tol.); I_R : Rated Current; I_{SAT} : Saturation Current; $R_{DC\max.}$: DC Resistance max.

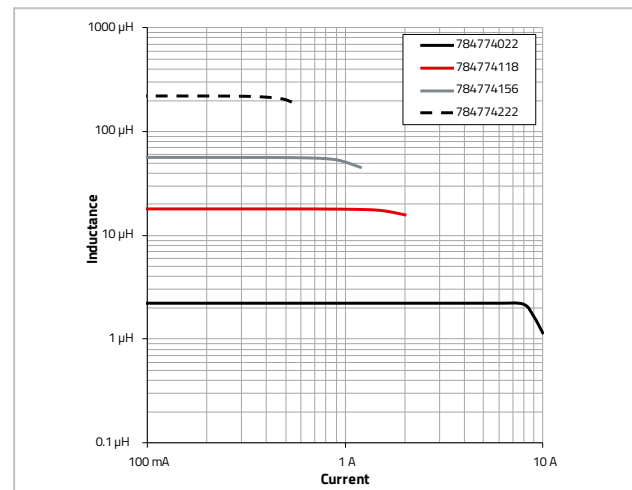
Test Conditions

I_R referring to 40 K self-heating
above ambient temperature
 I_{SAT} referring to inductance loss of 10% typ

Dimensions: (mm)



Inductance vs. Current



Size 7850

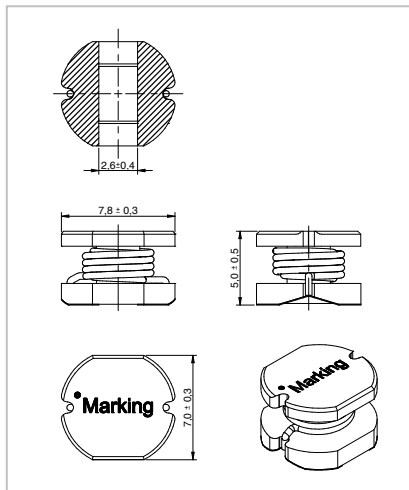
Order Code	L (μH)	Tol. L	I_R (A)	I_{SAT} (A)	$R_{DC\max.}$ (Ω)
784775047	4.7	$\pm 20\%$	4.5	4.5	0.019
784775056	5.6	$\pm 20\%$	4	4	0.022
784775068	6.8	$\pm 20\%$	3.7	3.8	0.026
784775082	8.2	$\pm 20\%$	3.2	3.2	0.04
78477510	10	$\pm 10\%$	2.3	2.95	0.07
784775112	12	$\pm 10\%$	2.18	2.23	0.08
784775115	15	$\pm 10\%$	1.93	2.2	0.09
784775118	18	$\pm 10\%$	1.89	2.14	0.1
784775122	22	$\pm 10\%$	1.76	1.81	0.11
784775127	27	$\pm 10\%$	1.48	1.62	0.12
784775133	33	$\pm 10\%$	1.35	1.47	0.13
784775139	39	$\pm 10\%$	1.25	1.33	0.16
784775147	47	$\pm 10\%$	1.17	1.24	0.18
784775168	68	$\pm 10\%$	0.99	1.05	0.28
784775182	82	$\pm 10\%$	0.9	0.95	0.37
78477520	100	$\pm 10\%$	0.77	0.86	0.43
784775212	120	$\pm 10\%$	0.67	0.81	0.47
784775215	150	$\pm 10\%$	0.6	0.71	0.64
784775218	180	$\pm 10\%$	0.55	0.57	0.71
784775222	220	$\pm 10\%$	0.51	0.56	0.96
784775227	270	$\pm 10\%$	0.47	0.51	1.11
784775233	330	$\pm 10\%$	0.43	0.48	1.26
784775239	390	$\pm 10\%$	0.38	0.43	1.77
784775247	470	$\pm 10\%$	0.36	0.38	1.96

L: Inductance; Tol. L: Inductance (Tol.); I_R : Rated Current; I_{SAT} : Saturation Current; $R_{DC\max.}$: DC Resistance max.

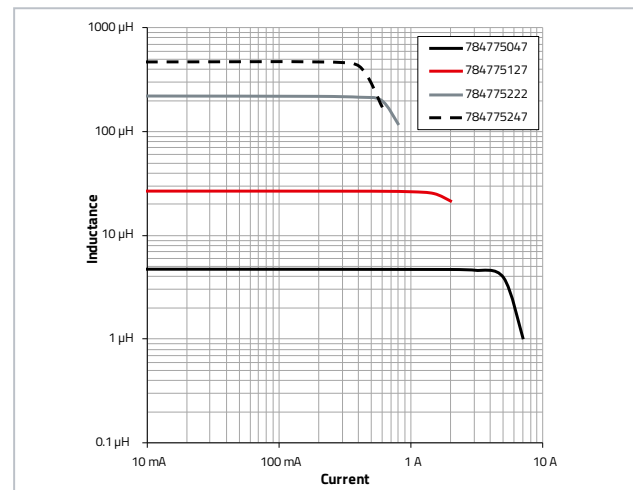
Test Conditions

I_R referring to 40 K self-heating
above ambient temperature
 I_{SAT} referring to inductance loss of 10% typ

Dimensions: (mm)



Inductance vs. Current



Size 1054

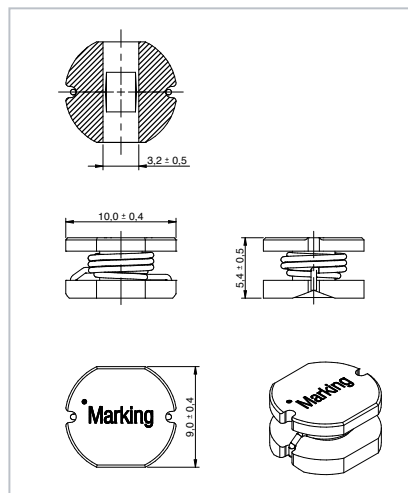
Order Code	L (μH)	Tol. L	I_R (A)	I_{SAT} (A)	$R_{DC\text{max.}}$ (Ω)
784776047	4.7	$\pm 20\%$	5	6	0.017
784776056	5.6	$\pm 20\%$	4.8	5.5	0.019
784776068	6.8	$\pm 20\%$	4.4	5	0.022
784776082	8.2	$\pm 20\%$	4.2	4.25	0.026
78477610	10	$\pm 10\%$	2.98	3.24	0.06
784776112	12	$\pm 10\%$	2.72	3.15	0.07
784776115	15	$\pm 10\%$	2.47	2.88	0.08
784776118	18	$\pm 10\%$	2.36	2.43	0.09
784776122	22	$\pm 10\%$	2.04	2.07	0.1
784776127	27	$\pm 10\%$	1.95	1.98	0.11
784776133	33	$\pm 10\%$	1.78	1.89	0.12
784776139	39	$\pm 10\%$	1.62	1.8	0.14
784776147	47	$\pm 10\%$	1.45	1.62	0.17
784776156	56	$\pm 10\%$	1.36	1.53	0.19
784776168	68	$\pm 10\%$	1.19	1.49	0.22
784776182	82	$\pm 10\%$	1.11	1.17	0.25
78477620	100	$\pm 10\%$	1.02	1.1	0.35
784776212	120	$\pm 10\%$	0.94	0.99	0.4
784776215	150	$\pm 10\%$	0.81	0.9	0.47
784776218	180	$\pm 10\%$	0.76	0.78	0.63
784776222	220	$\pm 10\%$	0.67	0.77	0.73
784776227	270	$\pm 10\%$	0.62	0.68	0.97
784776233	330	$\pm 10\%$	0.52	0.59	1.15
784776239	390	$\pm 10\%$	0.49	0.54	1.3
784776247	470	$\pm 10\%$	0.44	0.5	1.48

L: Inductance; Tol. L: Inductance (Tol.); I_R : Rated Current; I_{SAT} : Saturation Current; $R_{DC\text{max.}}$: DC Resistance max.

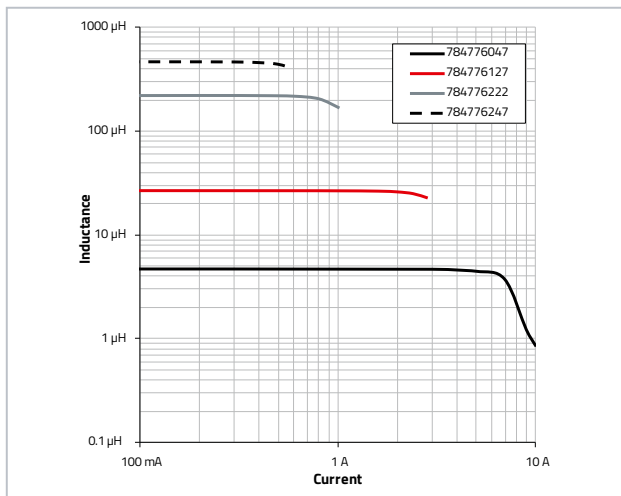
Test Conditions

I_R referring to 40 K self-heating
above ambient temperature
 I_{SAT} referring to inductance loss of 10% typ

Dimensions: (mm)

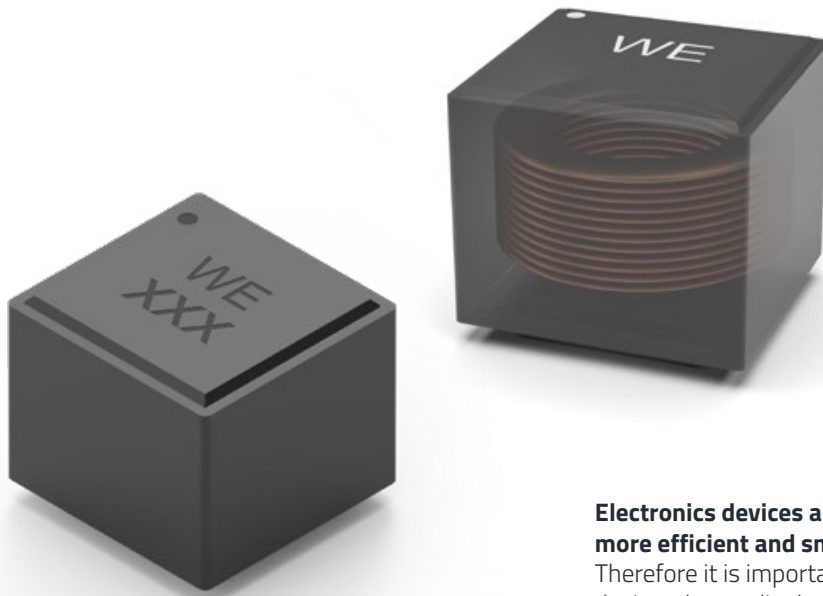


Inductance vs. Current



FLAT WIRE INDUCTOR

DESIGNED FOR EFFICIENCY!

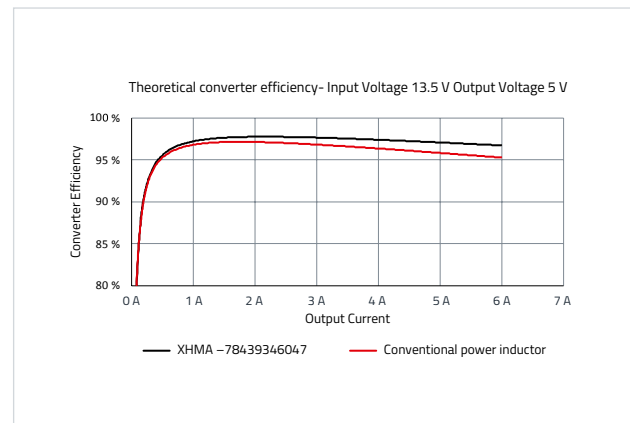
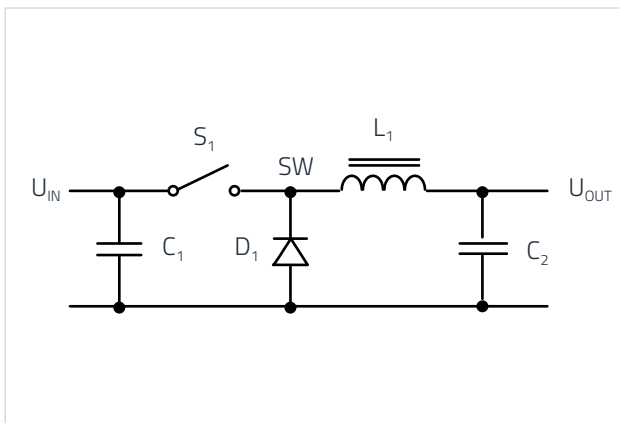


Electronics devices are getting more efficient and smaller.

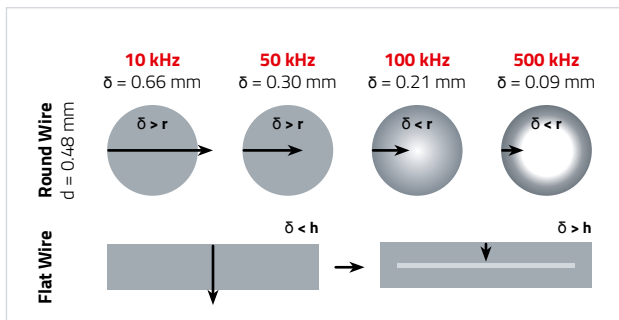
Therefore it is important that electronic components are designed accordingly. To fulfil these requirements WE inductors are using optimized core materials and suitable wire shapes like flat wire.

Improve the efficiency of you converter and maximize the power density by using a flat wire inductor

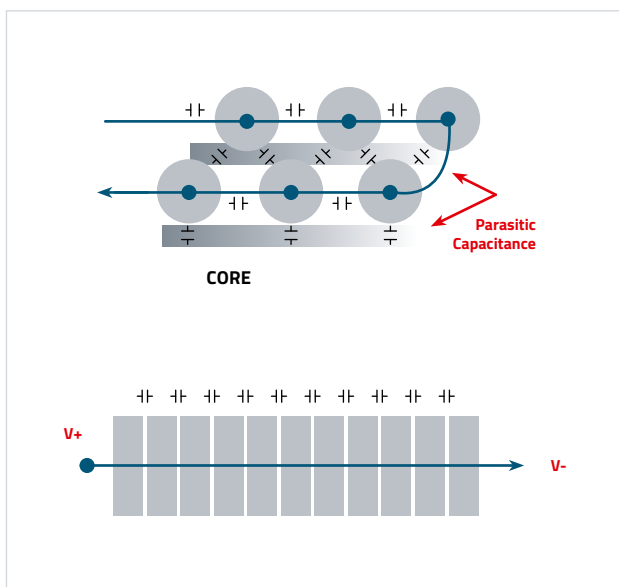
Typical Buck converter application:



The AC skin effect reduces the effective cross section area the current can flow. A flat wire has much more surface area with the same cross-sectional area. With more surface area, the impact of the skin effect is reduced.



The figure shows the cross section of a cylindrical conductor and a flat conductor, the intensity of the grey color represents the intensity of the current in the conductor. δ is the skin depth.



Flat wire can distribute the electric field uniformly, which minimizes the parasitic capacitance and achieves the best EMC effect at the source. The EMI compatibility problem will be minimized.

The size difference between WE-XHMA and a conventional standard shielded power inductor:

- Using flat wire is space saving. For example the WE-XHMA is 3 times smaller in volume and requires 3 times less space on the PCB than an equivalent round wire inductor. When comparing 1:1 sizes, flat wire inductors offer better rated currents than an equivalent round wire inductors.



WÜRTH ELEKTRONIK OFFERS FIVE PRODUCT SERIES WITH FLAT WIRE TECHNOLOGY



WE-HCFAT

- WE-HCFAT is a THT high current inductor characterized by an extremely low R_{DC} value and low core losses.
- It has high mechanical stability and is designed for high power applications.



WE-HCIA

- WE-HCIA is a high current flat wire inductor for automotive applications
- It is made of a superflux core and flat wire coil
- Its low profile and high current capabilities make it a good option in a great variety of applications



WE-XHMA

- WE-XHMA is an extreme high current molded inductor for automotive applications
- Its construction is the best solution to achieve maximum power density



WE-CHSA

- WE-CHSA is a cube high current SMD inductor for automotive applications
- Its shielded construction combined with a MnZn core makes it the best choice to minimize radiated emissions in filtering applications



WE-CHSA P

- WE-CHSA P is the performance version of the WE-CHSA
- The internal core material is substituted with a new and improved iron alloy. This leads to a product with outstanding saturation behavior

WE-XHMA

SMD POWER INDUCTOR



Characteristics

- Operating temperature: -40 °C up to +125 °C
- Flat wire coil for low copper losses
- Composite core material allows high saturation currents
- Compact design
- Magnetically shielded
- High current capability and able to handle high transient current spikes
- Low leakage flux noise
- AEC-Q200

Applications

- DC/DC converter for high current power supplies
- DC/DC converter for field programmable gate array (FPGA)
- Power supplies for mobile devices
- POL converters
- Mainboards / graphic cards
- Battery powered devices
- Wireless communication devices
- Filter

Extreme high current capabilities
up to 50.6 A (saturation)

Size 6030

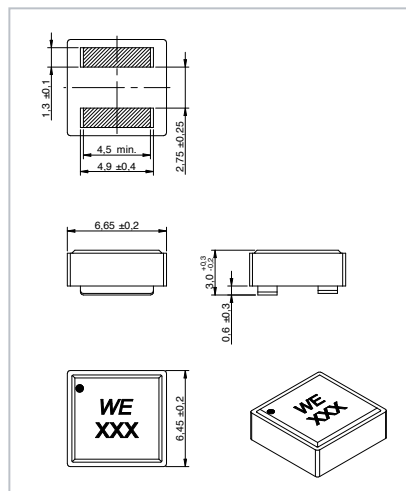
Order Code	L (μH)	Tol. L	I _{RP,40K} (A)	I _{R,40K} (A)	I _{SAT,30%} (A)	I _{SAT,10%} (A)	R _{DC typ.} (mΩ)	f _{res} (MHz)	Mount
784393440018	0.18	±20%	35.65	20	50.6	24.9	1.32	169	SMT
784393440033	0.33		27.35	16.5	42.9	20	2.1	113	
784393440056	0.56		22.75	16	30.8	14.5	2.9	77	
78439344010	1		15.75	12	24.95	11	5.5	59	
78439344012	1.2		14.45	10.3	21.6	7.7	6.4	53	
78439344022	2.2		10.85	8	16.25	7.5	10.5	37	
78439344033	3.3		7.65	6	14.5	6.7	19.2	31	
78439344047	4.7		5.8	4.7	10.5	3.7	31	28	

L: Inductance; Tol. L: Inductance (Tol.); I_{RP,40K}: Performance Rated Current; I_{R,40K}: Rated Current; I_{SAT,30%}: Saturation Current @ 30%; I_{SAT,10%}: Saturation Current @ 10%; R_{DC typ.}: DC Resistance; f_{res}: Self Resonant Frequency

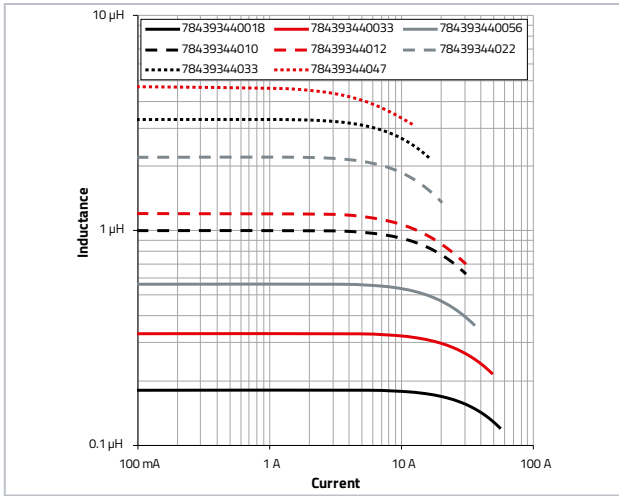
Test Conditions

I_R referring to 40K self-heating above ambient temperature
I_{SAT} referring to inductance loss of 30% typ

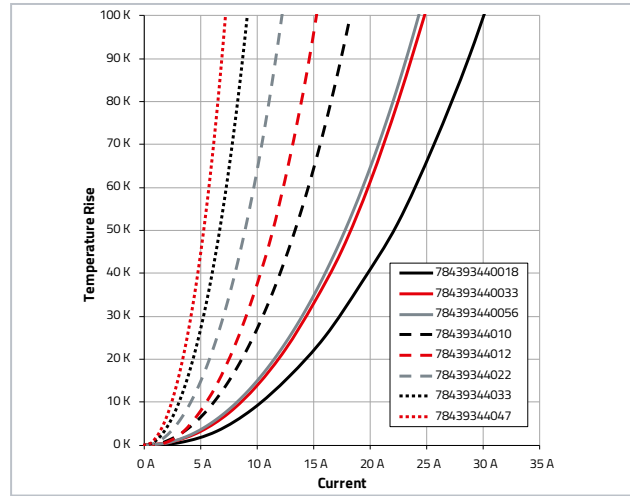
Dimensions: (mm)



Inductance vs. Current



Temperature Rise vs. Current



Size 6060

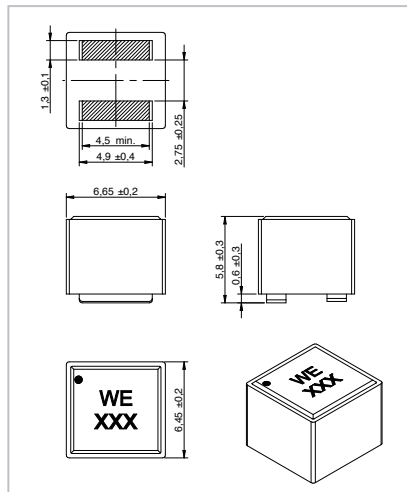
Order Code	L (μH)	Tol. L	I _{RP,40K} (A)	I _{R,40K} (A)	I _{SAT,30%} (A)	I _{SAT,10%} (A)	R _{DC typ.} (mΩ)	f _{res} (MHz)	Mount
78439346047	4.7	±20%	9.6	7.4	13	6.5	13	28	SMT
78439346056	5.6		8.9	6.9	12.1	5.8	15	25	
78439346068	6.8		8.1	6.5	11.3	5.65	17.6	22	
78439346082	8.2		6.95	5.3	9.3	4.6	23	19	
78439346100	10		6.4	5	9.7	5.05	26.5	18	

L: Inductance; Tol. L: Inductance (Tol.); I_{RP,40K}: Performance Rated Current; I_{R,40K}: Rated Current; I_{SAT,30%}: Saturation Current @ 30%; I_{SAT,10%}: Saturation Current @ 10%; R_{DC typ.}: DC Resistance; f_{res}: Self Resonant Frequency

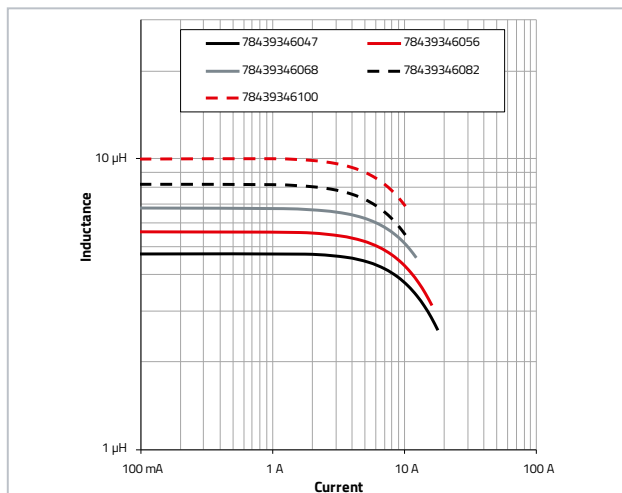
Test Conditions

I_R referring to 40K self-heating above ambient temperature
I_{SAT} referring to inductance loss of 30% typ

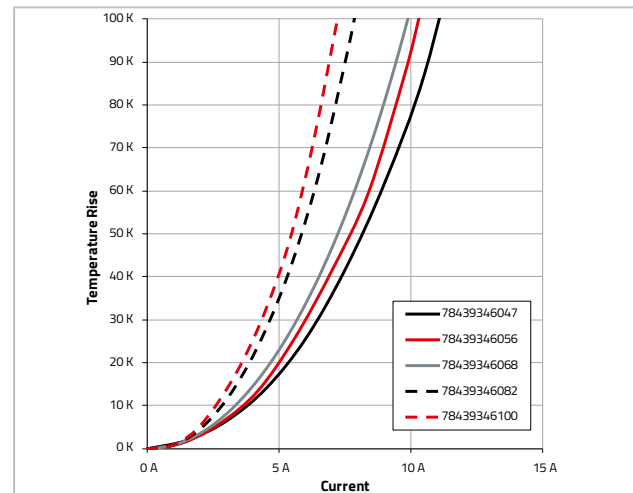
Dimensions: (mm)



Inductance vs. Current



Temperature Rise vs. Current



Size 8080

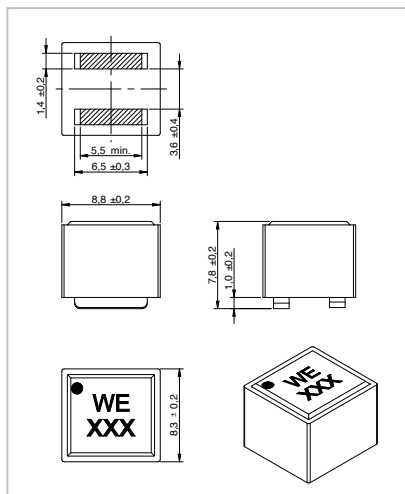
Order Code	L (μH)	Tol. L	I _{RP,40K} (A)	I _{R,40K} (A)	I _{SAT,30%} (A)	I _{SAT,10%} (A)	R _{DC typ.} (mΩ)	f _{res} (MHz)	Mount
78439358010	1	±20%	30.25	17	38.15	18.15	2.1	53	SMT
78439358022	2.2		21.85	13	26.45	12.55	3.7	33	
78439358047	4.7		13.35	9.5	16.65	7.5	8.65	22	
78439358068	6.8		10.55	7.2	17.6	8.5	13	22	
78439358100	10		8.5	5.8	13.5	6.3	19	17	

L: Inductance; Tol. L: Inductance (Tol.); I_{RP,40K}: Performance Rated Current; I_{R,40K}: Rated Current; I_{SAT,30%}: Saturation Current @ 30%; I_{SAT,10%}: Saturation Current @ 10%; R_{DC typ.}: DC Resistance; f_{res}: Self Resonant Frequency

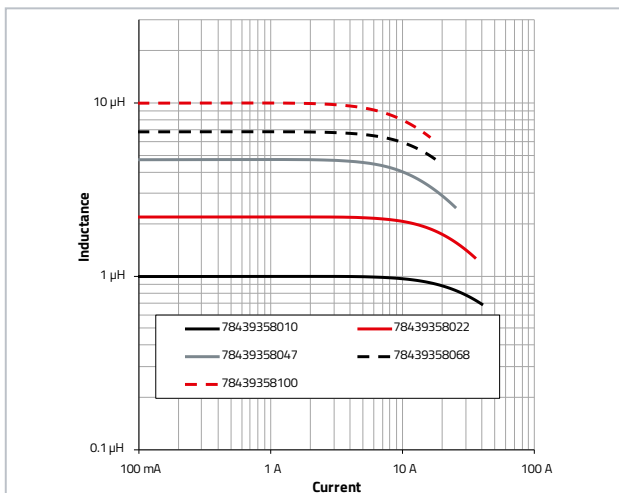
Test Conditions

I_R referring to 40K self-heating above ambient temperature
 I_{SAT} referring to inductance loss of 30% typ

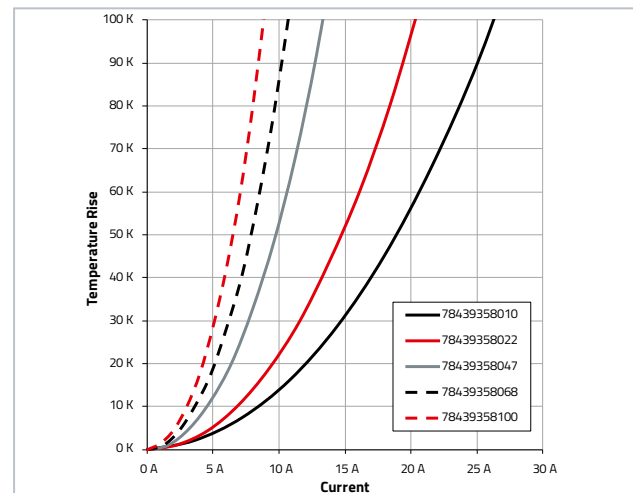
Dimensions: (mm)



Inductance vs. Current



Temperature Rise vs. Current



Size 1090

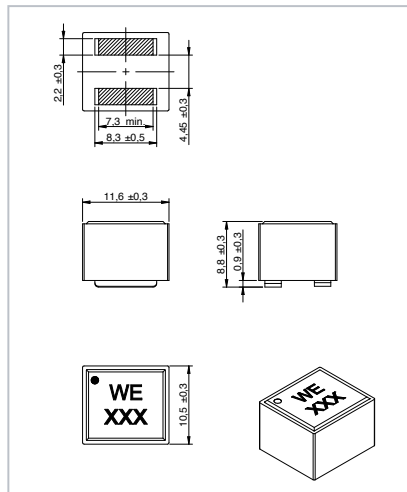
Order Code	L (μH)	Tol. L	$I_{RP,40K}$ (A)	$I_{R,40K}$ (A)	$I_{SAT,30\%}$ (A)	$I_{SAT,10\%}$ (A)	$R_{DC\ typ.}$ ($m\Omega$)	f_{res} (MHz)	Mount
78439369022	2.2	$\pm 20\%$	32.05	16	32.1	15.65	2.2	28	SMT
78439369033	3.3		24.95	15	34	15.6	3.4	23	
78439369047	4.7		20	13.5	28.05	13.6	5	21	
78439369056	5.6		18.15	11.5	24.45	11.1	5.9	18	
78439369068	6.8		16.3	10.5	23.25	10.7	7.16	16	
78439369082	8.2		13.4	9.8	20.45	9.4	10	16	
78439369100	10		12.7	9.4	20.3	9.2	11	14	
78439369150	15		10.75	8.3	16.95	7.2	14.8	11	

L: Inductance; Tol. L: Inductance (Tol.); $I_{RP,40K}$: Performance Rated Current; $I_{R,40K}$: Rated Current; $I_{SAT,30\%}$: Saturation Current @ 30%; $I_{SAT,10\%}$: Saturation Current @ 10%; $R_{DC\ typ.}$: DC Resistance; f_{res} : Self Resonant Frequency

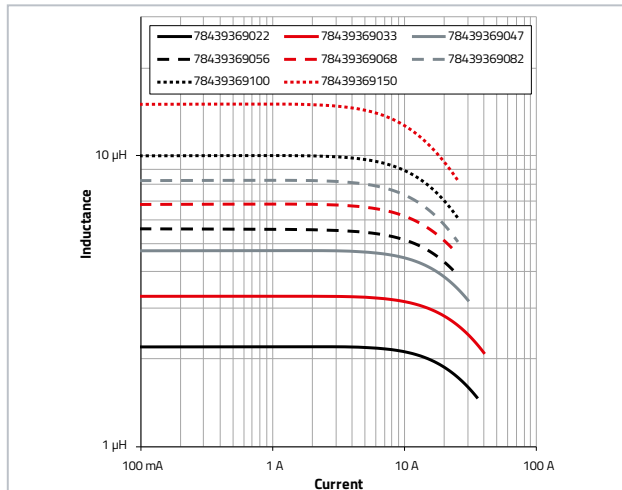
Test Conditions

I_R referring to 40K self-heating above ambient temperature
 I_{SAT} referring to inductance loss of 30% typ

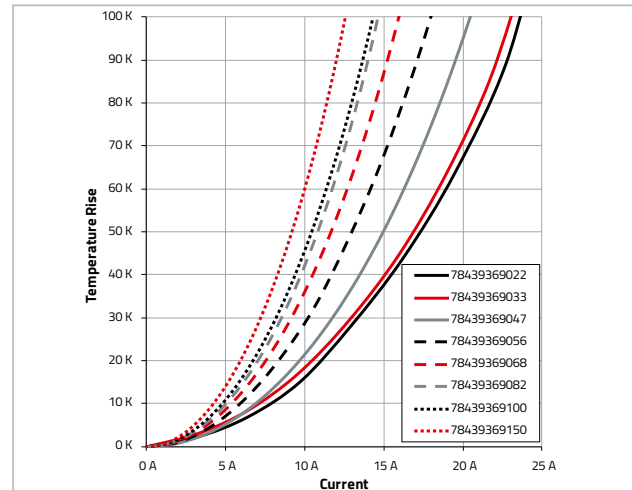
Dimensions: (mm)



Inductance vs. Current



Temperature Rise vs. Current



Size 1510

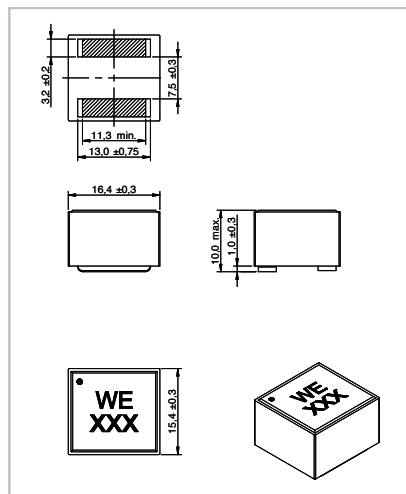
Order Code	L (μH)	Tol. L	$I_{RP,40K}$ (A)	$I_{R,40K}$ (A)	$I_{SAT,30\%}$ (A)	$I_{SAT,10\%}$ (A)	$R_{DC\ typ.}$ ($m\Omega$)	f_{res} (MHz)	Mount
78439370047	4.7	$\pm 20\%$	29.37	17	47.4	20.9	3.1	16	SMT
78439370068	6.8		25.3	15	40.05	17.8	4.1	14	
78439370082	8.2		21.35	13	36.4	15	5.5	11	
78439370100	10		19.6	11.5	31.2	12.9	6.4	9	
78439370150	15		14.7	10	26.1	10.25	10.5	8	
78439370220	22		13.35	8	22.35	9.1	12.5	7	
78439370330	33		10.8	8.5	18.15	6.8	18	5	

L: Inductance; Tol. L: Inductance (Tol.); $I_{RP,40K}$: Performance Rated Current; $I_{R,40K}$: Rated Current; $I_{SAT,30\%}$: Saturation Current @ 30%; $I_{SAT,10\%}$: Saturation Current @ 10%; $R_{DC\ typ.}$: DC Resistance; f_{res} : Self Resonant Frequency

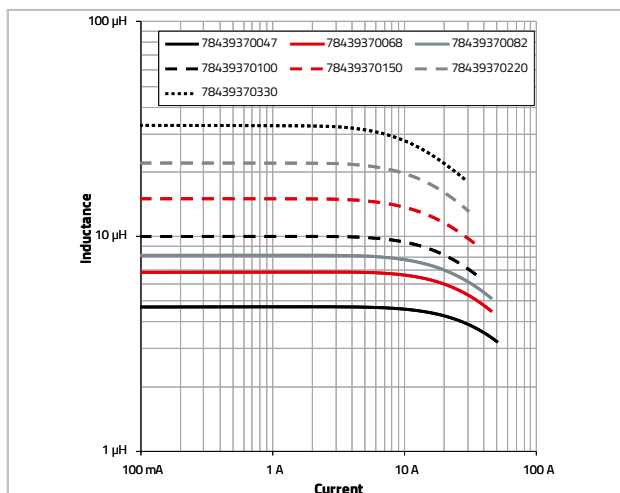
Test Conditions

I_R referring to 40K self-heating above ambient temperature
 I_{SAT} referring to inductance loss of 30% typ

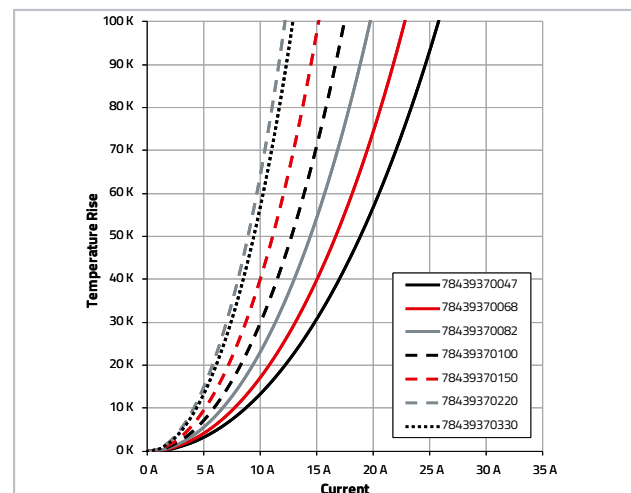
Dimensions: (mm)



Inductance vs. Current



Temperature Rise vs. Current



Learn more in our online catalog
www.we-online.com/we-xhma

WE-HCIA

SMD FLAT WIRE HIGH CURRENT INDUCTOR



Characteristics

- Operating temperature: -55 °C up to +150 °C
- Magnetically shielded rod-core inductor
- Current capability up to 36 A
- AEC-Q200

Applications

- Filter choke for motor electronics
- Car infotainment
- Multimedia applications

Saturation current up to 36 A

Size 7050

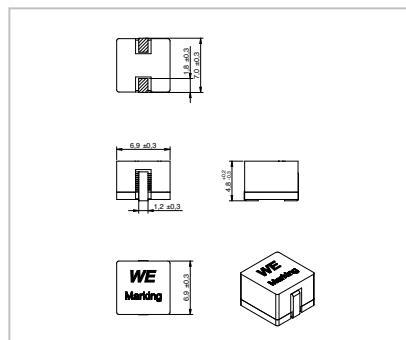
Order Code	L (μH)	Tol. L	I _R (A)	I _{SAT} (A)	R _{DC typ.} (mΩ)	R _{DC max.} (mΩ)	f _{res} (MHz)
7843140047	0.47	±20%	16.9	25	1.49	1.65	292
784314011	1.1		14.7	15.2	3.15	3.47	147
784314033	3.3		9.2	8.7	8.75	9.62	68
784314049	4.9		7.6	7.2	14.75	15.85	64
784314065	6.5		6.3	6.4	21.5	23.65	50
784314100	10		3.7	4.85	30.65	33.72	41

L: Inductance; Tol. L: Inductance (Tol.); I_R: Rated Current; I_{SAT}: Saturation Current; R_{DC typ.}: DC Resistance; R_{DC max.}: DC Resistance max.; f_{res}: Self Resonant Frequency

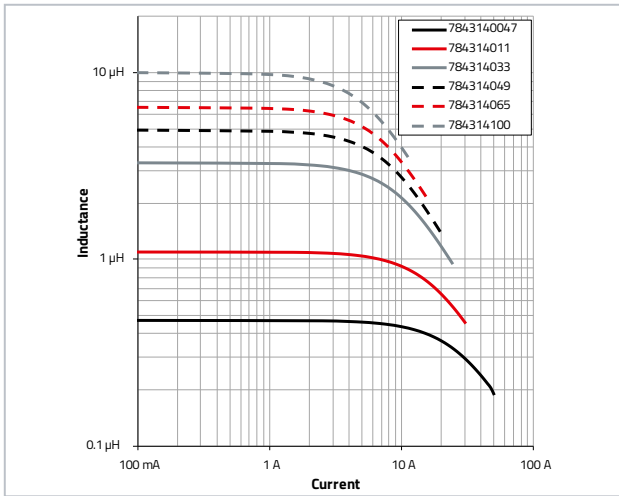
Test Conditions

I_R referring to 50K self-heating above ambient temperature
I_{SAT} referring to inductance loss of 30% typ

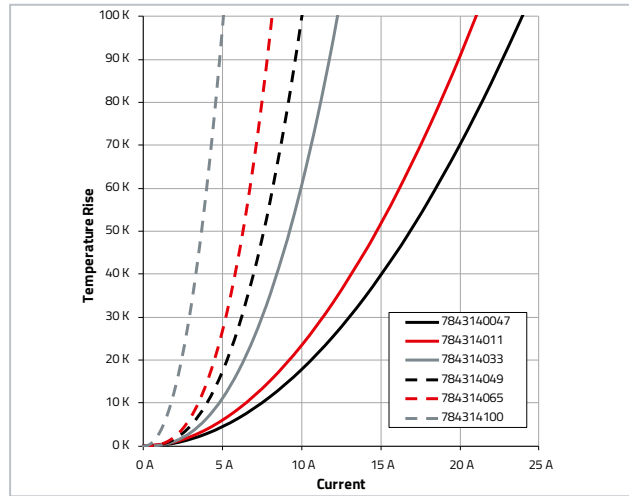
Dimensions: (mm)



Inductance vs. Current



Temperature Rise vs. Current



Size 1050

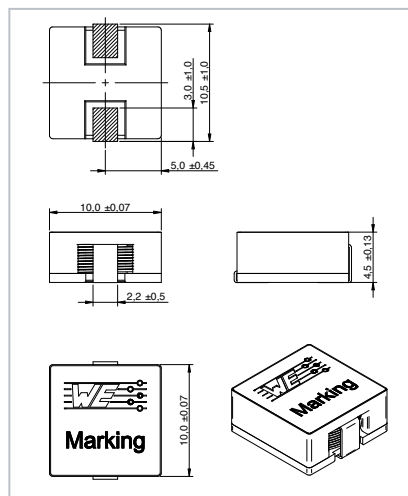
Order Code	L (μH)	Tol. L	I_R (A)	I_{SAT} (A)	$R_{DC \text{ typ.}}$ ($\text{m}\Omega$)	$R_{DC \text{ max.}}$ ($\text{m}\Omega$)	f_{RES} (MHz)
7843250072	0.72	$\pm 20\%$	22	36.1	1.26	1.38	103
784325012	1.2		20	30	1.86	2.04	76
784325018	1.8		16	25	3	3.3	60
784325024	2.4		14	20.7	4.9	5.4	55
784325033	3.3		12	18	5.2	5.75	41
784325042	4.2		11	15.7	7.1	7.8	36
784325055	5.2		10	14.3	8.6	9.45	31
784325065	6.5		8.4	13	10.5	11.55	27
784325078	7.8		8	12	13.1	14.4	23
784325100	10		7.2	10.3	21	23.1	21
784325160	16.7		5	7.8	34.5	38	16

L: Inductance; Tol. L: Inductance (Tol.); I_R : Rated Current; I_{SAT} : Saturation Current; $R_{DC \text{ max.}}$: DC Resistance max.; f_{RES} : Self Resonant Frequency

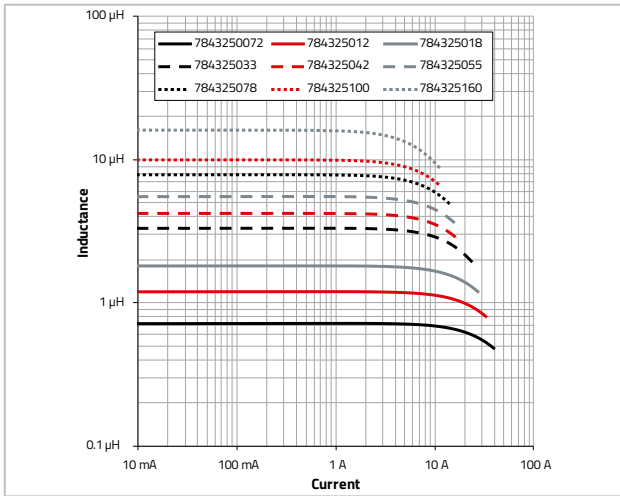
Test Conditions

I_R referring to 50K self-heating
above ambient temperature
 I_{SAT} referring to inductance loss of 30% typ

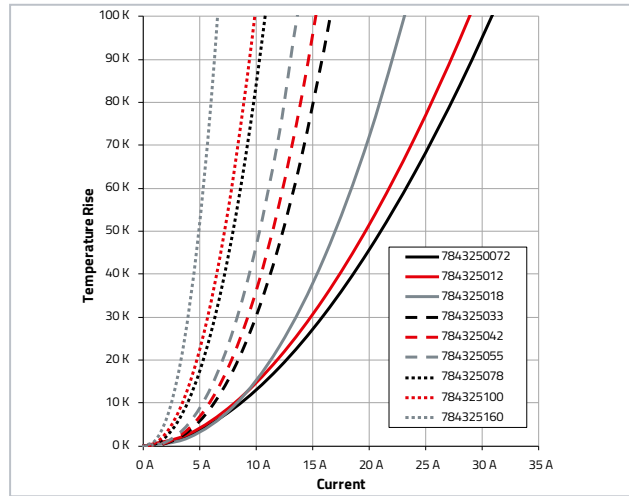
Dimensions: (mm)



Inductance vs. Current



Temperature Rise vs. Current



WE-CHSA / WE-CHSA P

PERFORMANCE SMD HIGH CURRENT INDUCTOR

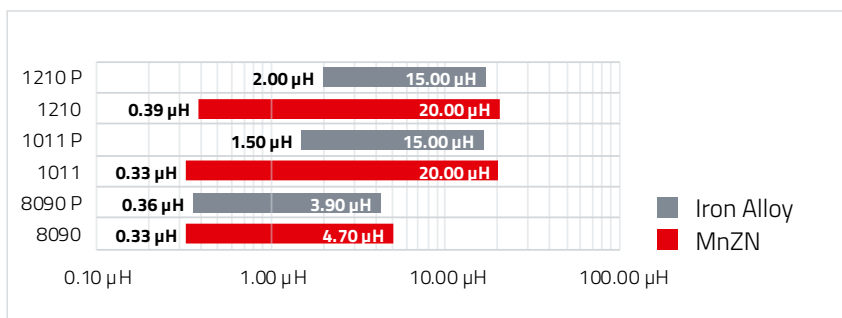
WE COMPONENTS: TEMPERATURE VS. CURRENT

- Shielded construction**
 - Improved electromagnetic radiation
- Patented airgap design**
 - High precision airgap fixing system ensures stable electrical parameters
- MnZn housing**
 - High permeability and low losses
- Flat wire**
 - High filling factor ensures maximum electrical performance
 - Extremely low R_{DC} for high current capabilities
- MnZn or iron alloy rodcore**
 - MnZn and iron alloy are used to enhanced permeability or iron alloy for soft saturation
- Robust base design**
 - Excellent coplanarity for PCB assembly due to a plastic base
 - Solid construction, high mechanical stability

Characteristics

- Thanks to best filling factor of flat wire we can achieve extreme low R_{DC}
- Patented airgap design ensures product reliability
- Suitable for high frequency application due to MnZn core material
- Shielded construction makes it ideal for filtering applications.

WE-CHSA Inductance ranges: Performance vs. standard



In order to maintain production stability some parts are wound with round wire:

- 1212 P: 78433290030, 78433290051, 78433290082, 78433290110
 1212: 7843320039, 7843320068, 7843320100, 7843320150
 1011: 7843330033, 7843330560, 7843330100

WE-CHSA

SMT HIGH CURRENT INDUCTOR



Characteristics

- Operating temperature: -55 °C up to +150 °C
- Magnetically shielded rod-core inductor
- Current capability up to 28 A
- Ideal coplanarity due to embedded solder pads
- AEC-Q200

Applications

- Filter choke for motor electronics
- Car infotainment
- Multimedia applications

Size 8090

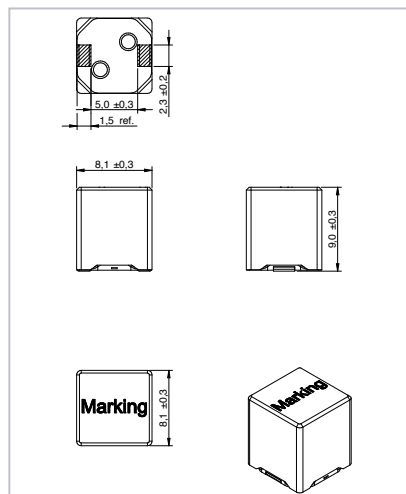
Order Code	L (µH)	Tol. L	I _R (A)	I _{SAT} (A)	R _{DC typ.} (mΩ)	R _{DC max.} (mΩ)	f _{res} (MHz)
7843340033	0.33	±20%	21	36	1.75	2.1	196
7843340047	0.47		19	29.7	2.3	2.8	146
7843340068	0.68		15.6	24.8	3.45	4.1	132
7843340100	1		12.8	21.3	4.9	5.9	100
7843340220	2.2		8.4	14.7	10	12	80
7843340330	3.3		6.8	12.3	15.35	18.4	67
7843340470	4.7		5	9.6	24.1	28.9	50

L: Inductance; Tol. L: Inductance (Tol.); I_R: Rated Current; I_{SAT}: Saturation Current; R_{DC max.}: DC Resistance max.; f_{res}: Self Resonant Frequency

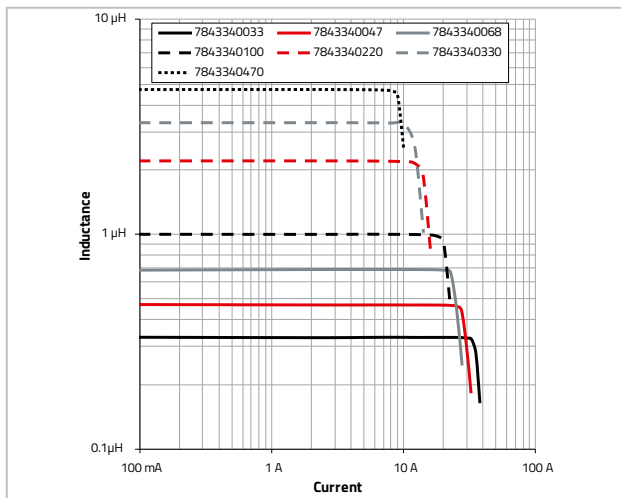
Test Conditions

I_R referring to 50K self-heating above ambient temperature
 I_{SAT} referring to inductance loss of 30% typ

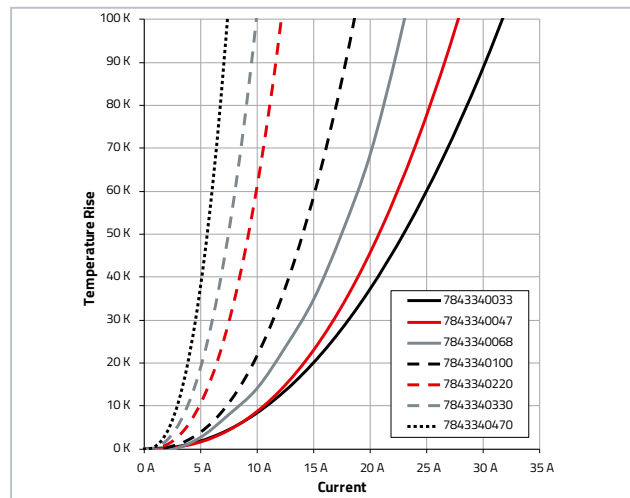
Dimensions: (mm)



Inductance vs. Current



Temperature Rise vs. Current



Size 1011

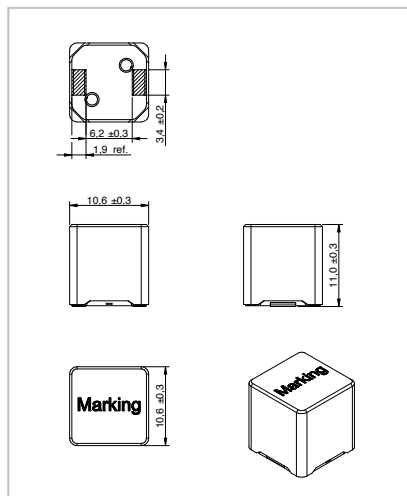
Order Code	L (μH)	Tol. L	I_R (A)	I_{SAT} (A)	$R_{DC\text{ typ.}}$ ($\text{m}\Omega$)	$R_{DC\text{ max.}}$ ($\text{m}\Omega$)	f_{res} (MHz)
7843330033	0.33	$\pm 20\%$	26	54.5	1.4	1.7	230
7843330056	0.56		23.5	43.4	1.7	2.05	100
7843330100	1		20.3	34.8	2.4	2.9	88
7843330180	1.8		16	25.9	3.9	4.7	67
7843330330	3.3		13.8	20.5	5.4	6.5	55
7843330390	3.9		11.2	17.8	7.25	8.7	50
7843330560	5.6		9.2	14.9	10.85	13	41
7843330820	8.2		7.2	12.8	15.9	19.1	34
7843331000	10		6.7	10.7	21.5	25.8	30
7843331200	12		5.6	9.1	27.7	33.2	28
7843331800	18		5.1	8.5	34.25	41.1	23
7843332000	20		4.3	7	50.8	60.9	20

L: Inductance; Tol. L: Inductance (Tol.); I_R : Rated Current; I_{SAT} : Saturation Current; $R_{DC\text{ max.}}$: DC Resistance max.; f_{res} : Self Resonant Frequency

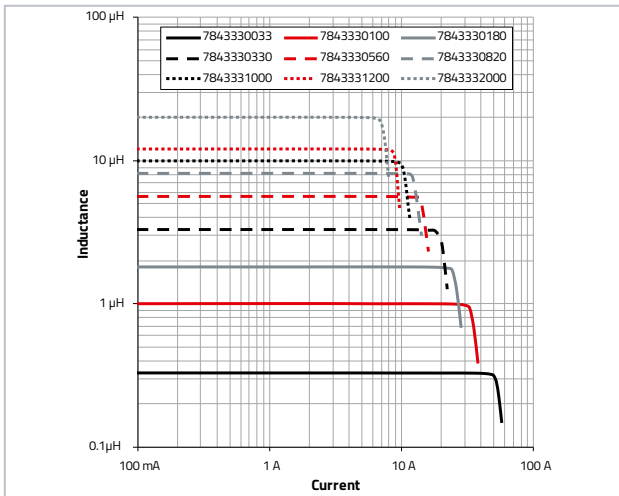
Test Conditions

I_R referring to 50K self-heating
above ambient temperature
 I_{SAT} referring to inductance loss of 30% typ

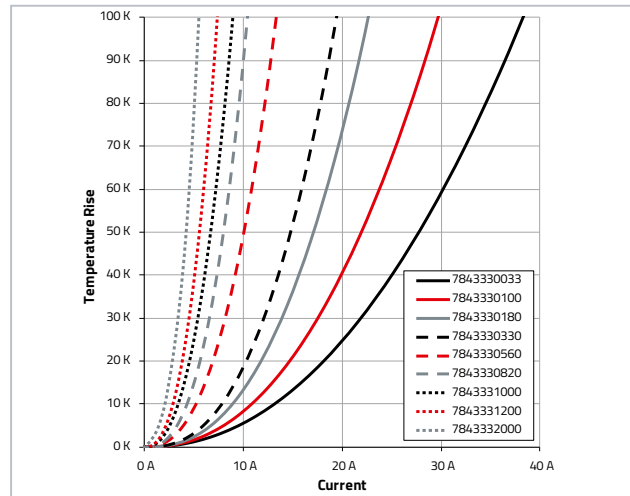
Dimensions: (mm)



Inductance vs. Current



Temperature Rise vs. Current



Size 1212

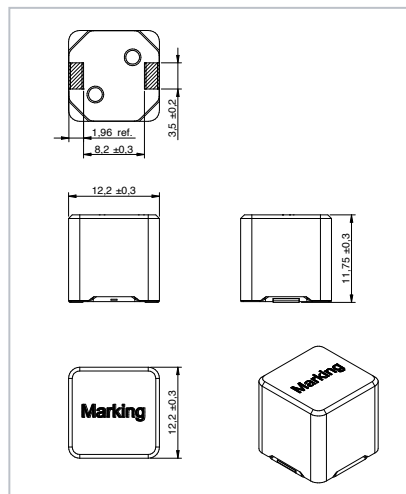
Order Code	L (μH)	Tol. L	I_R (A)	I_{SAT} (A)	$R_{DC\text{ typ.}}$ ($\text{m}\Omega$)	$R_{DC\text{ max.}}$ ($\text{m}\Omega$)	f_{res} (MHz)
7843320039	0.39	$\pm 20\%$	28	57	1.35	1.65	100
7843320068	0.68		25.3	41.4	1.7	2.05	88
7843320100	1		22.5	33.7	2	2.4	81
7843320150	1.5		19.7	28.2	2.7	3.3	74
7843320270	2.7		16.2	21.6	3.9	4.7	50
7843320330	3.3		13.8	19	5.3	6.4	45
7843320470	4.7		12.2	15.3	6.85	8.2	37
7843320680	6.8		9.8	13	9.9	11.9	34
7843320820	8.2		8.8	12.1	12.45	15	30
7843321000	10		7.8	10.8	16.95	20.35	30
7843321200	12		7.1	10.3	17.9	21.5	28
7843321800	18		5.5	7.7	32	38.4	21
7843322000	20		5.4	7	35.9	43.1	19

L: Inductance; Tol. L: Inductance (Tol.); I_R : Rated Current; I_{SAT} : Saturation Current; $R_{DC\text{ max.}}$: DC Resistance max.; f_{res} : Self Resonant Frequency

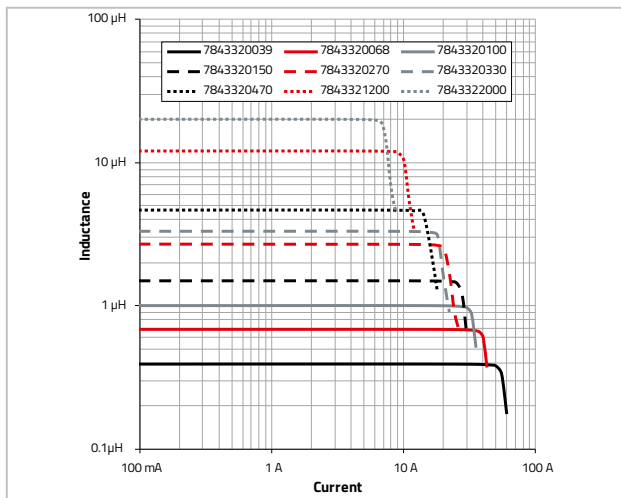
Test Conditions

I_R referring to 50K self-heating
above ambient temperature
 I_{SAT} referring to inductance loss of 30% typ

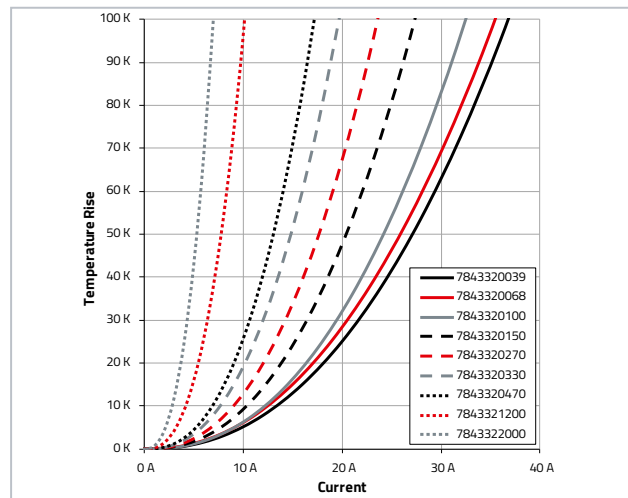
Dimensions: (mm)



Inductance vs. Current



Temperature Rise vs. Current



WE-CHSA P

PERFORMANCE SMT HIGH CURRENT INDUCTOR



Characteristics

- Operating temperature: -55 °C up to +150 °C
- Magnetically shielded rod-core inductor
- Saturation current up to 48.5 A
- Iron alloy core leads to soft saturation
- Excellent coplanarity due to the plastic base
- AEC-Q200

Applications

- Filter choke for motor electronics
- Car infotainment
- DC/DC converter
- Multimedia applications
- Microprocessor filtering

Shielded construction
for minimum EMI

Size 8090 P

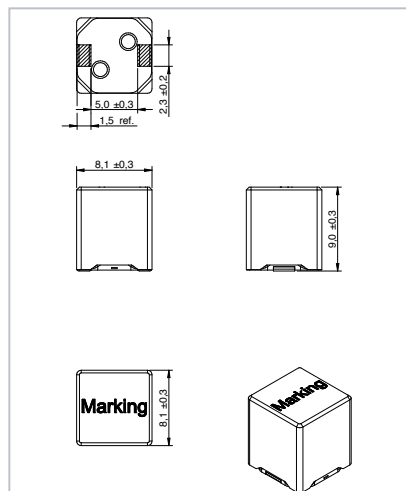
Order Code	L (μ H)	Tol. L	I_R (A)	I_{SAT} (A)	$R_{DC\ typ.}$ (m Ω)	$R_{DC\ max.}$ (m Ω)	f_{res} (MHz)
78433490036	0.36	±20%	19	48.5	2.3	2.8	218
78433490056	0.56		15.6	40.5	3.45	4.1	184
78433490075	0.75		12.8	34.5	4.9	5.9	154
78433490160	1.6		8.4	22.3	10	12	93
78433490240	2.4		6.8	18.4	15.35	18.4	80
78433490390	3.9		5	14.6	24.1	28.9	65

L: Inductance; Tol. L: Inductance (Tol.); I_R : Rated Current; I_{SAT} : Saturation Current; $R_{DC\ max.}$: DC Resistance max.; f_{res} : Self Resonant Frequency

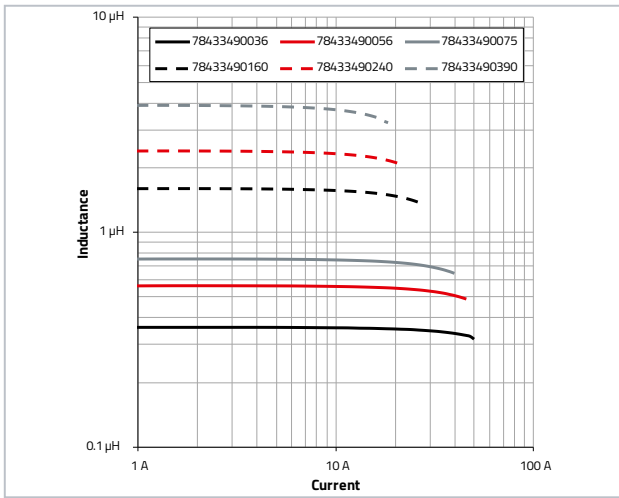
Test Conditions

I_R referring to 50K self-heating above ambient temperature
 I_{SAT} referring to inductance loss of 10% typ

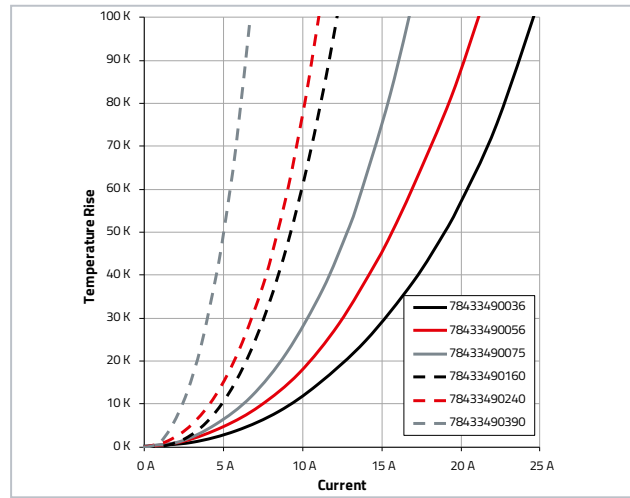
Dimensions: (mm)



Inductance vs. Current



Temperature Rise vs. Current



Size 1011 P

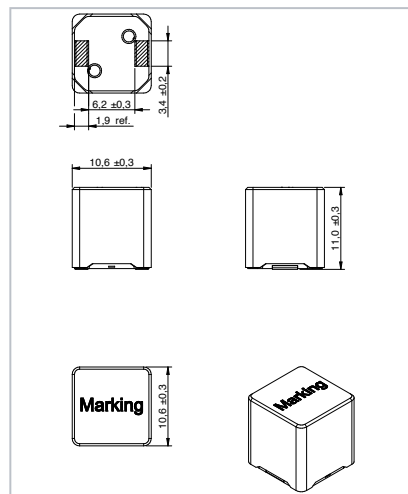
Order Code	L (μH)	Tol. L	I _R (A)	I _{SAT} (A)	R _{DC typ.} (mΩ)	R _{DC max.} (mΩ)	f _{res} (MHz)
78433390150	1.5	±20%	16	37.4	3.9	4.7	67
78433390240	2.4		13.8	28.7	5.4	6.5	55
78433390300	3		11.2	26.2	7.25	8.7	50
78433390430	4.3		9.2	20.6	10.85	13	41
78433390620	6.2		7.2	18	15.9	19.1	34
78433390820	8.2		6.7	15.6	21.5	25.8	30
78433391000	10		5.6	14.4	27.7	33.2	28
78433391500	15		4.3	11.3	50.8	60.9	20

L: Inductance; Tol. L: Inductance (Tol.); I_R: Rated Current; I_{SAT}: Saturation Current; R_{DC max.}: DC Resistance max.; f_{res}: Self Resonant Frequency

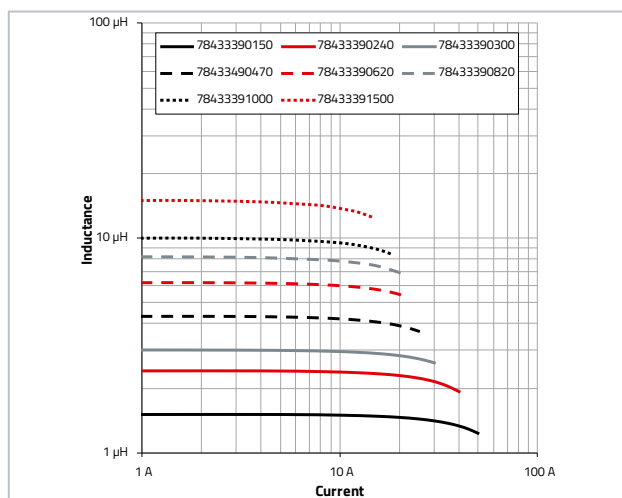
Test Conditions

I_R referring to 50K self-heating above ambient temperature
I_{SAT} referring to inductance loss of 10% typ

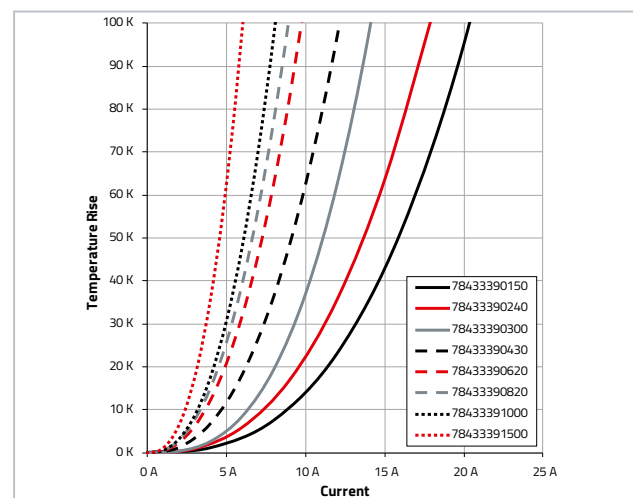
Dimensions: (mm)



Inductance vs. Current



Temperature Rise vs. Current



Size 1212 P

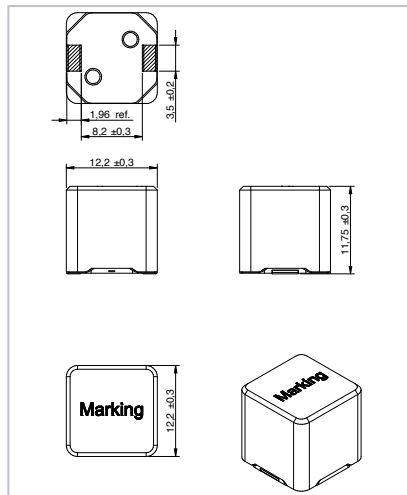
Order Code	L (μH)	Tol. L	I _R (A)	I _{SAT} (A)	R _{DC typ.} (mΩ)	R _{DC max.} (mΩ)	f _{res} (MHz)
78433290200	2	±20%	16.2	29	3.9	4.7	64
78433290240	2.4		13.8	24.8	5.3	6.4	60
78433290360	3.6		12.2	20.6	6.85	8.2	48
78433290510	5.1		9.8	17	9.9	11.9	40
78433290620	6.2		8.8	16	12.45	15	37
78433290750	7.5		7.8	14.6	16.95	20.35	34
78433290820	8.2		7.1	13.7	17.9	21.5	32
78433291500	15		5.4	9.8	35.9	43.1	23

L: Inductance; Tol. L: Inductance (Tol.); I_R: Rated Current; I_{SAT}: Saturation Current; R_{DC max.}: DC Resistance max.; f_{res}: Self Resonant Frequency

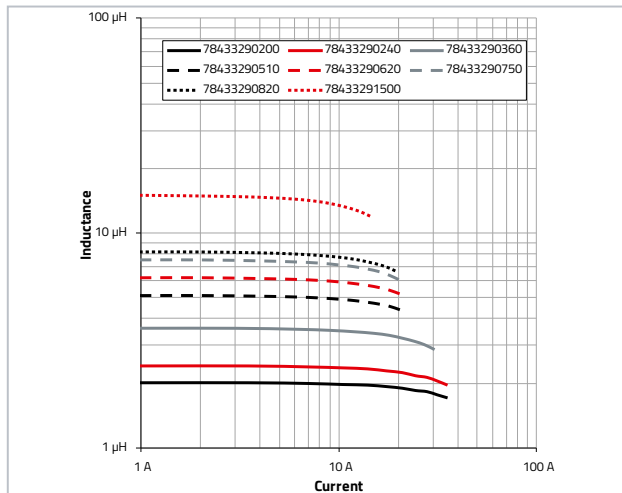
Test Conditions

I_R referring to 50K self-heating above ambient temperature
 I_{SAT} referring to inductance loss of 10% typ

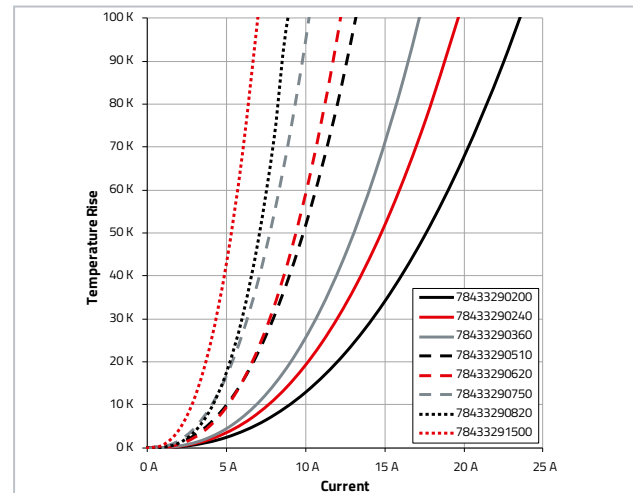
Dimensions: (mm)



Inductance vs. Current



Temperature Rise vs. Current



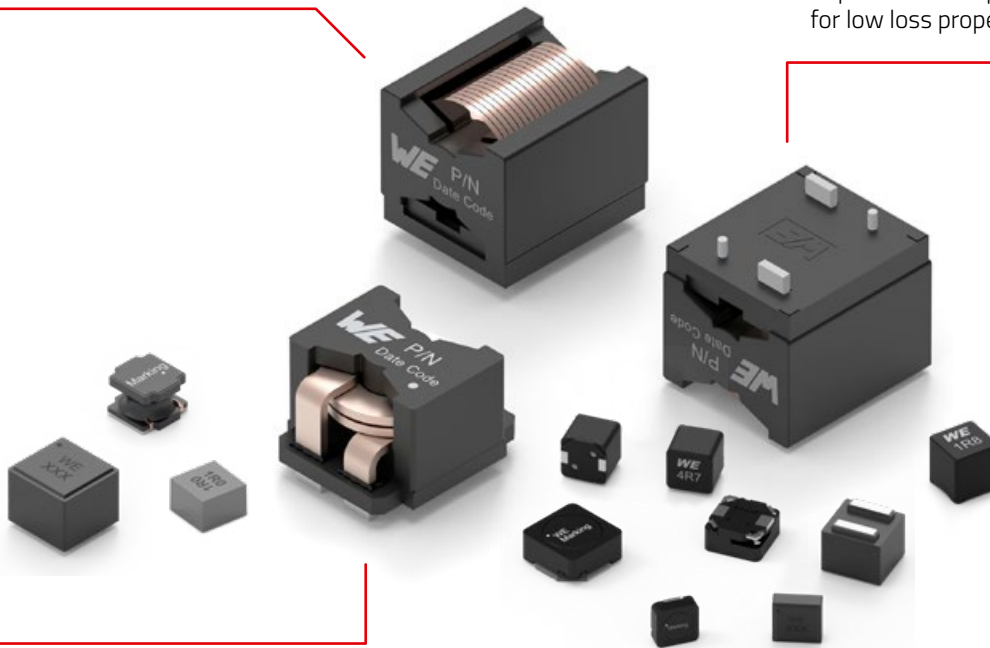
WE-HCFAT A MAJOR PLAYER IN THE GAME

Designed for high-power applications

Size 3540 and 3540 Low loss [36 x 41 x 35 mm]

Inductance range (from 6.8 to 47.0 uH)
Saturation current up to 82.7 A

- 10G vibration test passed with no extra fixation to PCB required
- 2 Types of core materials available: Standard and Low loss material
- Improved ferrite powder composition for low loss properties

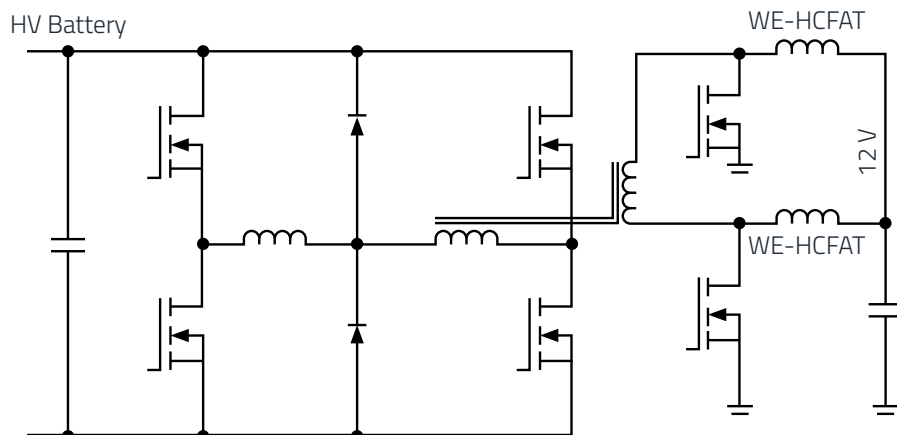


Size 3521 and 3521 Low loss [31.5 x 35 x 24 mm]

Inductance range [from 1.5 to 3.3 uH]
Saturation current up to 175 A

Typical Applications

Output current doubler
in HV to 12V board net
converter



WE-HCFAT

LOW LOSS THT HIGH CURRENT INDUCTOR



Characteristics

- Operating temperature: -40 °C to +150 °C
- THT version to assure the mechanical stability
- Inductance ranging from 1.5 μH up to 47 μH
- Current capability up to 75 A (Saturation up to 175 A)
- Extremely low R_{DC}
- Extra low core losses version available
- AEC-Q 200

Applications

- Storage inductor for high efficiency DC/DC converters
- High current DC motor drive
- On Board Charger
- High Current Output Filter

NEW!

Size 3521

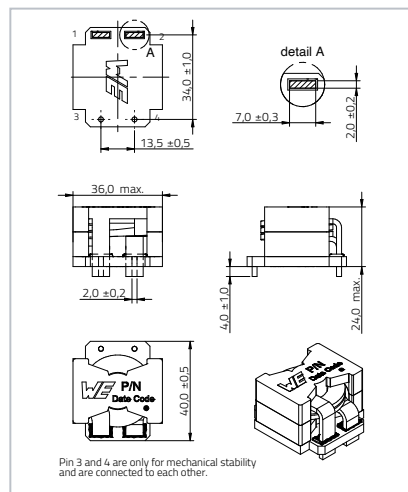
Order Code	L (μH)	Tol. L	I_{R} (A)	$R_{\text{DC typ.}}$ (m Ω)	$R_{\text{DC max.}}$ (m Ω)	I_{SAT} (A)	f_{res} (MHz)
7843763521015	1.5	±20%	75	0.35	0.39	170	37
7843763521022	2.2					130	32
7843763521033	3.3					82	22

L: Inductance; Tol. L: Inductance (Tol.); I_{R} : Rated Current; $R_{\text{DC typ.}}$: DC Resistance ; $R_{\text{DC max.}}$: DC Resistance max.; I_{SAT} : Saturation Current; f_{res} : Self Resonant Frequency

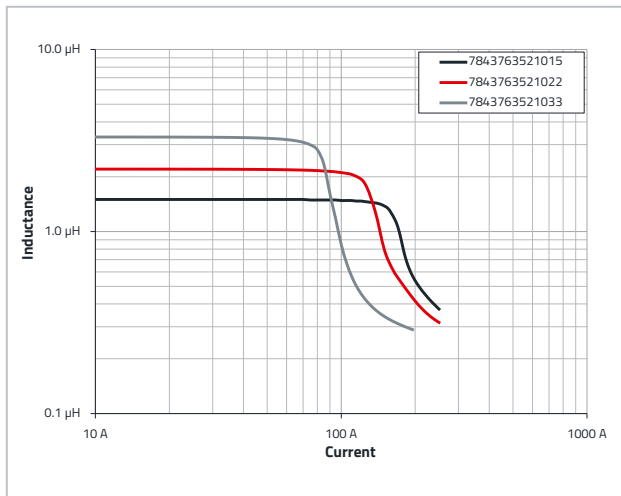
Test conditions

I_{R} referring to 50K self-heating above ambient temperature
 I_{SAT} referring to inductance loss of 30% typ

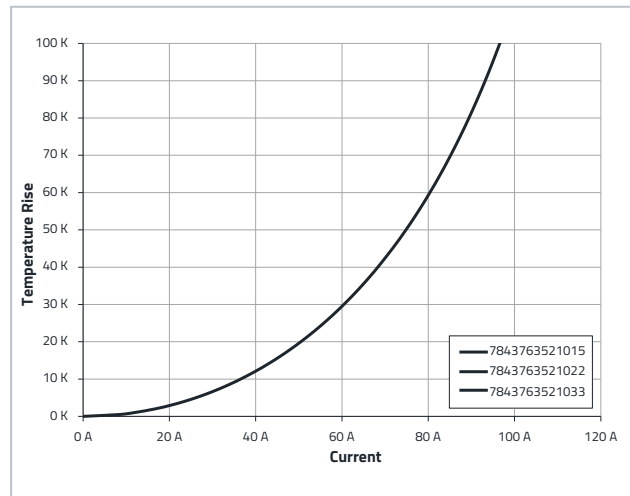
Dimensions: (mm)



Inductance vs. Current



Temperature Rise vs. Current



Size 3521 Low loss

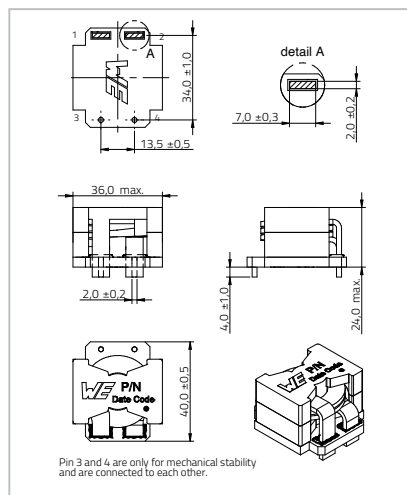
Order Code	L (μH)	Tol. L	I_R (A)	$R_{DC \text{ typ.}}$ ($\text{m}\Omega$)	$R_{DC \text{ max.}}$ ($\text{m}\Omega$)	I_{SAT} (A)	f_{res} (MHz)
78437613521015	1.5	$\pm 20\%$	75	0.35	0.39	175	40
78437613521022	2.2					120	32
78437613521033	3.3					76	23

L: Inductance; Tol. L: Inductance (Tol.); I_R : Rated Current; $R_{DC \text{ typ.}}$: DC Resistance ; $R_{DC \text{ max.}}$: DC Resistance max.; I_{SAT} : Saturation Current; f_{res} : Self Resonant Frequency

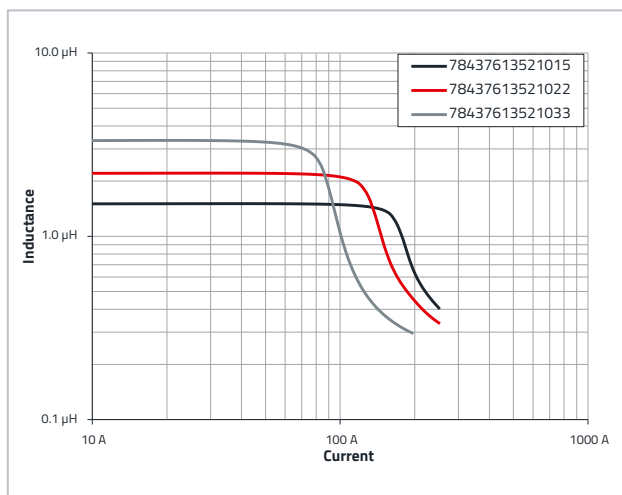
Test conditions

I_R referring to 50K self-heating above ambient temperature
 I_{SAT} referring to inductance loss of 30% typ

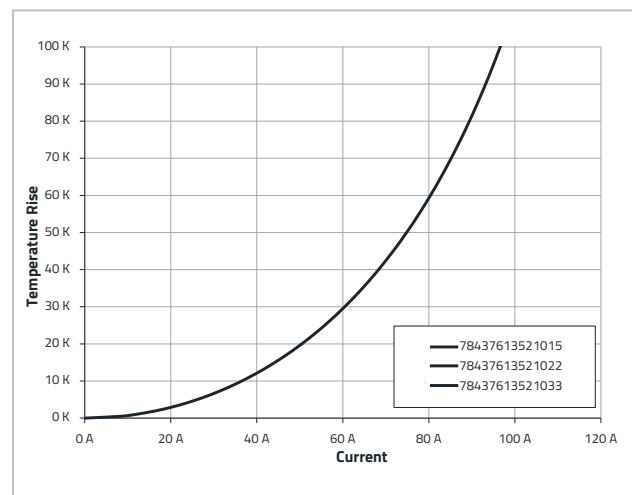
Dimensions: (mm)



Inductance vs. Current



Temperature Rise vs. Current



3540

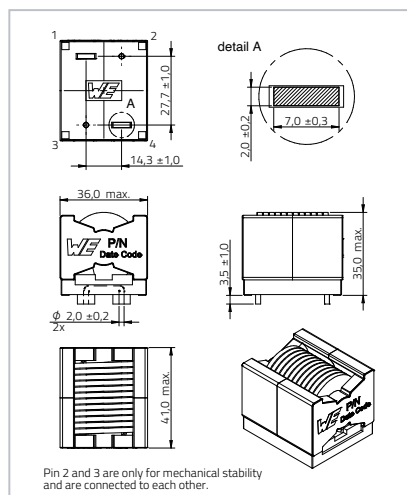
Order Code	L (μH)	Tol. L	I _R (A)	R _{DC typ.} (mΩ)	R _{DC max.} (mΩ)	I _{SAT} (A)	f _{res} (MHz)
7843763540068	6.8	±20%	56.7	1.01	1.2	76.5	20
7843763540100	10		56.7	1.01	1.2	62	16
7843763540150	15		45.3	1.77	2.16	51.6	14
7843763540220	22		40.6	2.63	3.2	42	10
7843763540330	33		32	5.67	6.38	38.9	9
7843763540470	47		32	5.67	6.38	31	7.5

L: Inductance; Tol. L: Inductance (Tol.); I_R: Rated Current; R_{DC typ.}: DC Resistance ; R_{DC max.}: DC Resistance max.; I_{SAT}: Saturation Current; f_{res}: Self Resonant Frequency

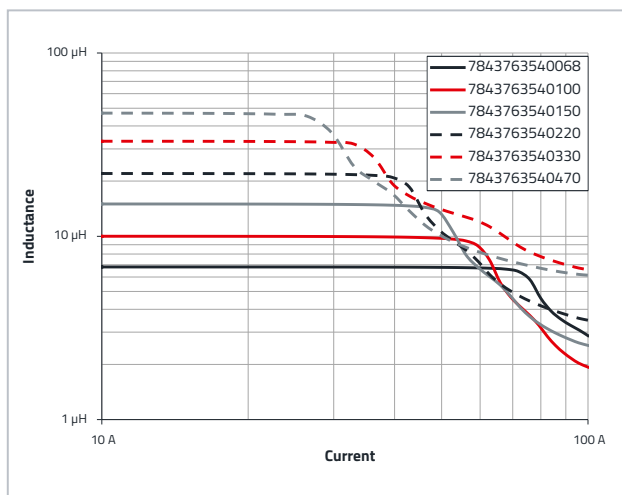
Test Conditions

I_R referring to 50K self-heating above ambient temperature
 I_{SAT} referring to inductance loss of 30% typ

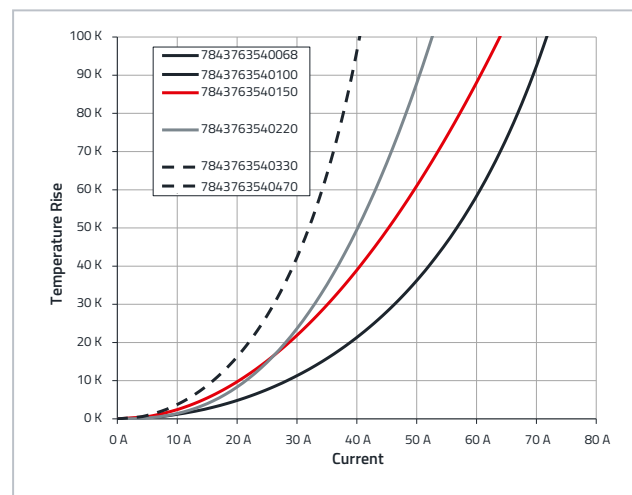
Dimensions: (mm)



Inductance vs. Current



Temperature Rise vs. Current



3540 Low loss

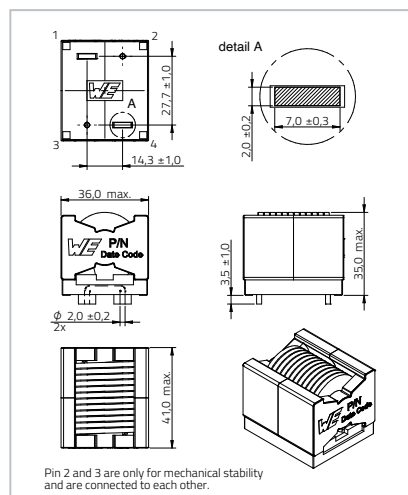
Order Code	L (μH)	Tol. L	I _R (A)	R _{DC typ.} (mΩ)	R _{DC max.} (mΩ)	I _{SAT} (A)	f _{res} (MHz)
78437613540068	6.8	±20%	56.7	1.01	1.2	82.7	20
78437613540100	10					70.7	17

L: Inductance; Tol. L: Inductance (Tol.); I_R: Rated Current; R_{DC typ.}: DC Resistance ; R_{DC max.}: DC Resistance max.; I_{SAT}: Saturation Current; f_{res}: Self Resonant Frequency

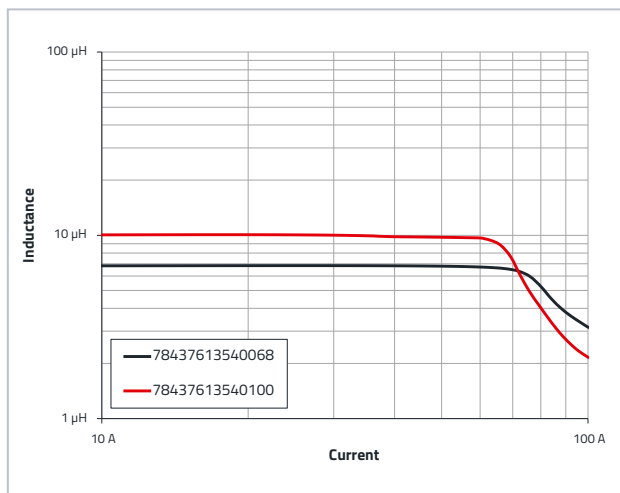
Test Conditions

IR referring to 50K self-heating above ambient temperature
ISAT referring to inductance loss of 30% typ

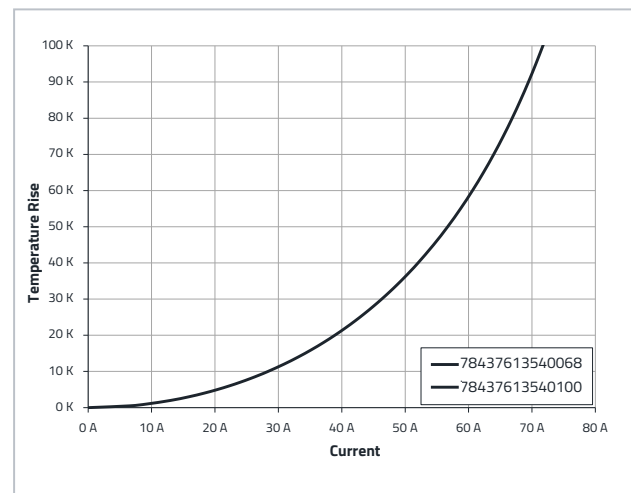
Dimensions: (mm)



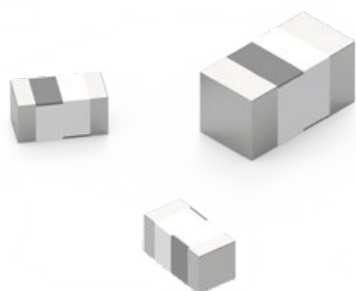
Inductance vs. Current



Temperature Rise vs. Current



MULTILAYER CERAMIC SMT INDUCTOR



Characteristics

- Operating temperature:
-55 °C up to +125 °C
- Multilayered inductor with ceramic body
- Double side polarity marking
- Inductive tolerances of 5%; 0,3 nH
- AEC-Q200

Applications

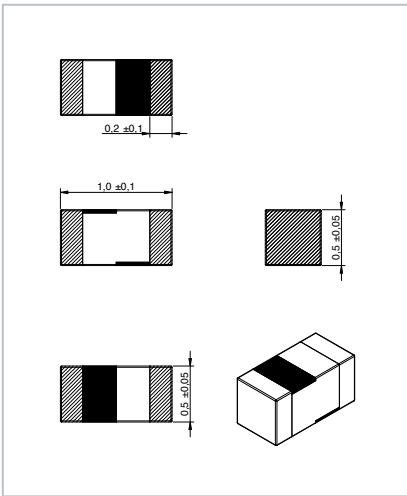
- Infotainment
- Keyless entry
- Filter circuits
- High frequency circuits
- Bluetooth

Size 0402

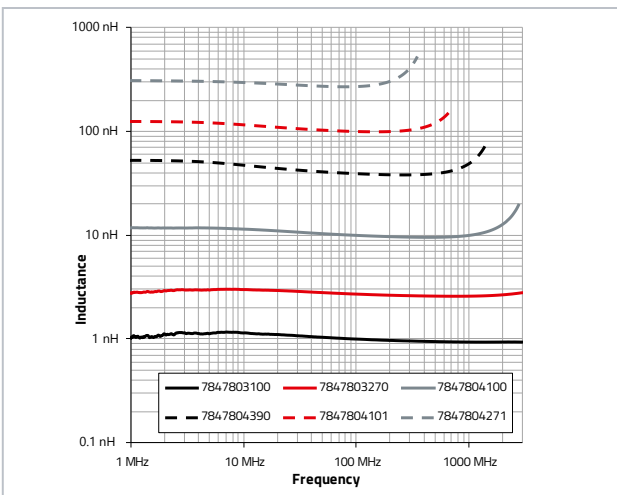
Order Code	L (nH)	Tol. L	I _R (mA)	Test Condition I _R	R _{DC max.} (Ω)	f _{res} (MHz)	Q _{min.}
7847803100	1	±0.3nH	300	ΔT = 20 K	0.1	8000	8
7847803270	2.7	±0.3nH	300		0.17	6000	
7847803330	3.3	±0.3nH	300		0.19	6000	
7847803390	3.9	±0.3nH	300		0.19	6000	
7847803560	5.6	±0.3nH	300		0.26	5300	
7847803680	6.8	±5%	300		0.29	4200	
7847803820	8.2	±5%	300		0.33	3600	
7847804100	10	±5%	300		0.35	3200	
7847804120	12	±5%	300		0.41	2800	
7847804150	15	±5%	300		0.46	2300	
7847804180	18	±5%	300		0.51	2100	
7847804270	27	±5%	300		0.67	1600	
7847804330	33	±5%	200		0.67	1500	
7847804390	39	±5%	200		1.06	1200	
7847804470	47	±5%	200		1.15	1000	
7847804560	56	±5%	200		1.2	800	
7847804680	68	±5%	180		1.25	800	
7847804820	82	±5%	150		1.6	600	
7847804101	100	±5%	150		1.6	600	
7847804181	180	±5%	150		3.38	500	
7847804271	270	±5%	110	4.9	500		

L: Inductance; Tol. L: Inductance (Tol.); I_R: Rated Current; Test Condition I_R: Rated Current (Test cond.); R_{DC max.}: DC Resistance max.; f_{res}: Self Resonant Frequency; Q_{min.}: Q-Factor

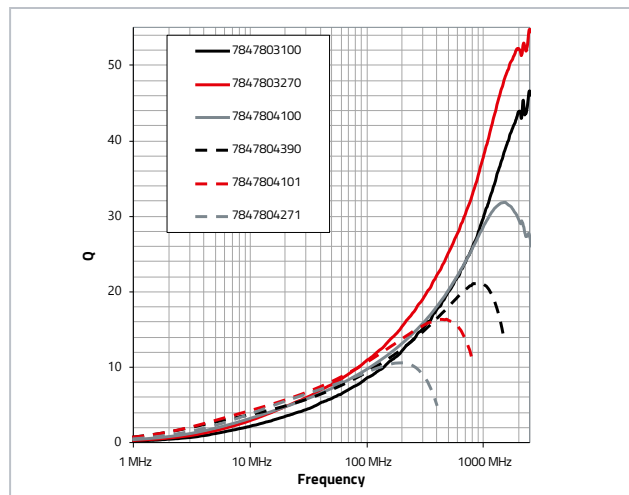
Dimensions: (mm)



Inductance vs. Frequency



Q vs. Frequency

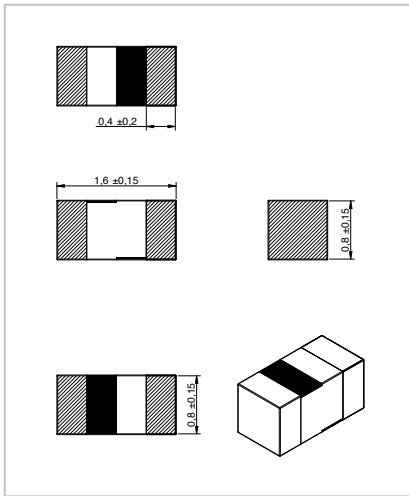


Size 0603

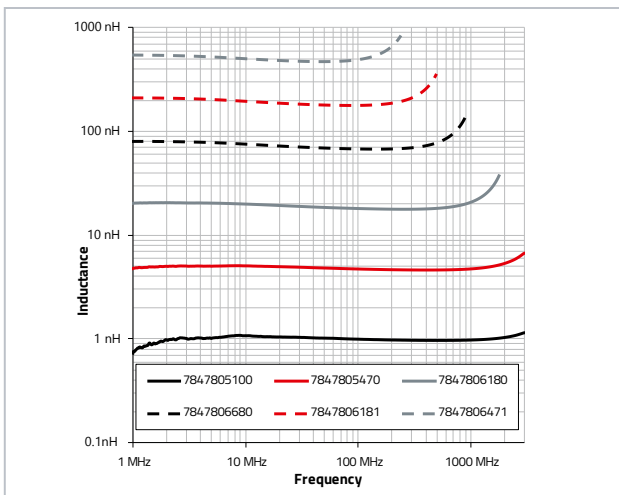
Order Code	L (nH)	Tol. L	I _R (mA)	Test Condition I _R	R _{DC max.} (Ω)	f _{res} (MHz)	Q _{min.}
7847805100	1	±0.3nH	1300	ΔT = 20 K	0.05	10000	8
7847805220	2.2	±0.3nH	950		0.1	6000	8
7847805390	3.9	±0.3nH	850		0.12	6000	10
7847805470	4.7	±0.3nH	700		0.14	4000	10
7847805560	5.6	±0.3nH	700		0.14	4000	10
7847805680	6.8	±5%	650		0.16	4000	10
7847805820	8.2	±5%	650		0.16	3500	10
7847806100	10	±5%	550		0.24	3400	12
7847806120	12	±5%	550		0.24	2600	12
7847806150	15	±5%	550		0.24	2300	12
7847806180	18	±5%	550		0.24	2000	12
7847806220	22	±5%	500		0.34	1600	12
7847806270	27	±5%	500		0.34	1400	12
7847806330	33	±5%	400		0.45	1200	12
7847806390	39	±5%	400		0.45	1100	12
7847806470	47	±5%	350		0.65	900	12
7847806560	56	±5%	350		0.65	900	12
7847806680	68	±5%	350		0.65	700	12
7847806820	82	±5%	300		0.85	600	12
7847806101	100	±5%	300		0.85	600	12
7847806121	120	±5%	300		0.85	500	8
7847806151	150	±5%	300		1.2	500	8
7847806181	180	±5%	300		1.2	400	8
7847806221	220	±5%	250		1.2	400	8
7847806271	270	±5%	250		1.9	400	8
7847806331	330	±5%	250		1.9	350	8
7847806391	390	±5%	150		2.3	350	8
7847806471	470	±5%	150		2.5	300	8

L: Inductance; Tol. L: Inductance (Tol.); I_R: Rated Current; Test Condition I_R: Rated Current (Test cond.); R_{DC max.}: DC Resistance max.; f_{res}: Self Resonant Frequency; Q_{min.}: Q-Factor

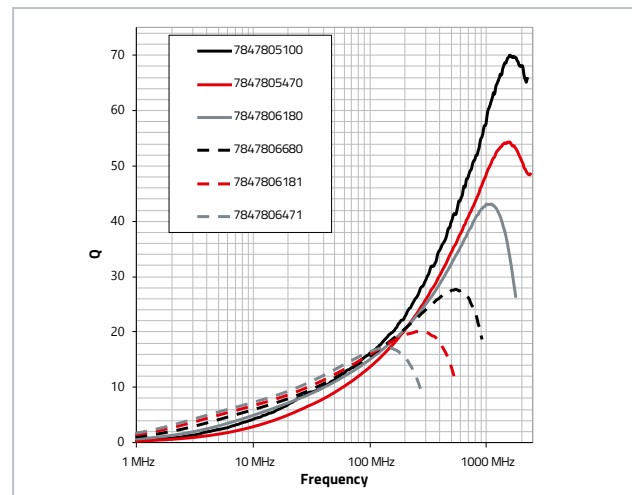
Dimensions: (mm)



Inductance vs. Frequency

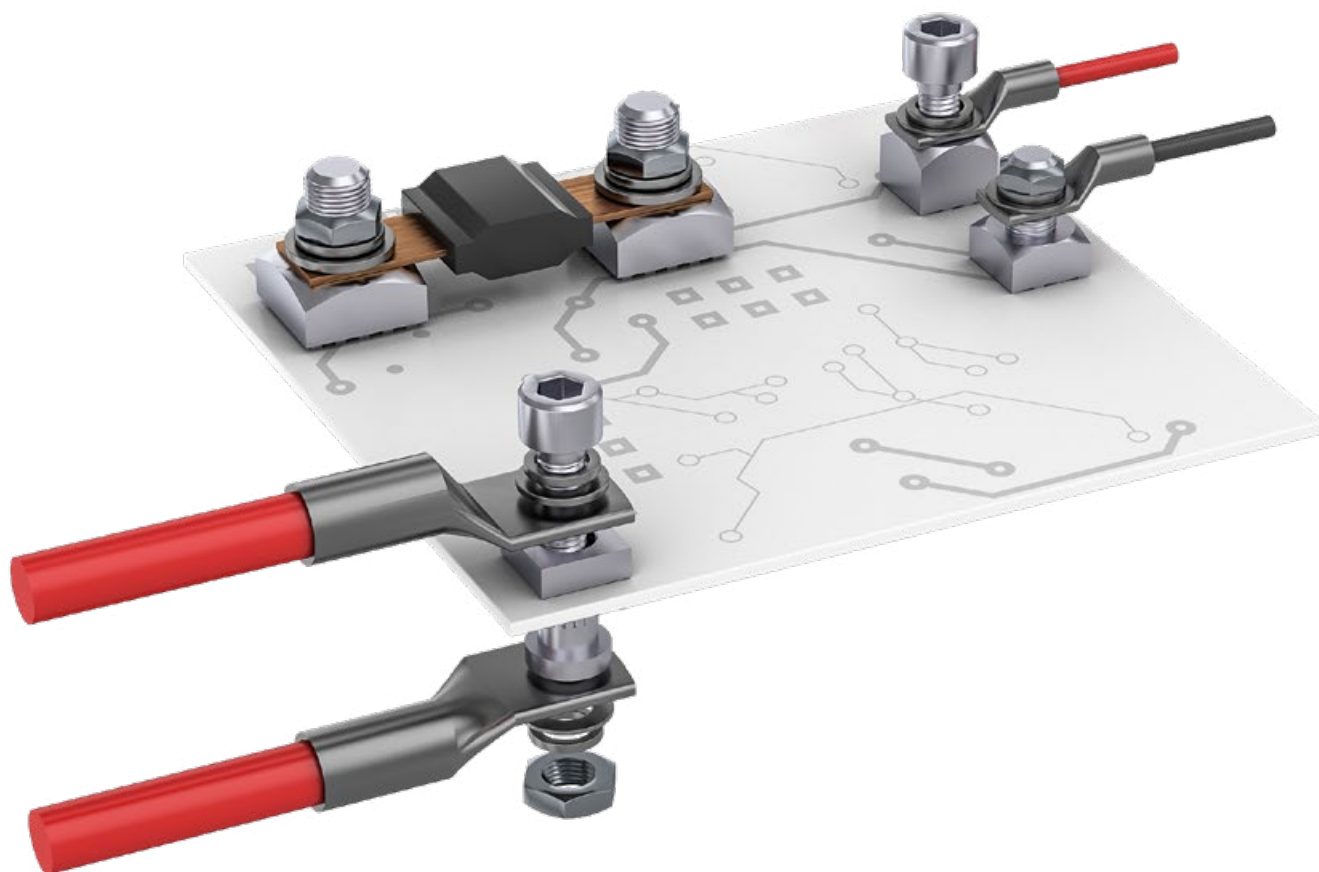


Q vs. Frequency



REDCUBE TERMINALS

PRESS-FIT WIRE-TO-BOARD



Features & Benefits

- Pressing the pins into the PCB, a high friction between pin and plated through-hole generates a homogeneous cold-welding between materials. Result is a gastight, strong mechanical connection with contact resistance less than 200 $\mu\Omega$.
- With the lowest Failure-In-Time value, **REDCUBE PRESS-FIT** is the most reliable technology on the PCB. The FIT value is up to 30 times better than that of a SMD solder joint.
- **REDCUBE PRESS-FIT** is suitable for two side mounting and allows very compact design of modules.
- Mounting of laminated fuses is also possible.

Available Products

- WP-PFEFUA External Thread M3 to M8
- WP-PFICFA Internal thread Circumference M4 to M6
- WP-PFIFUA Internal Thread Full Plain M3 to M8
- Rated current up to 250A



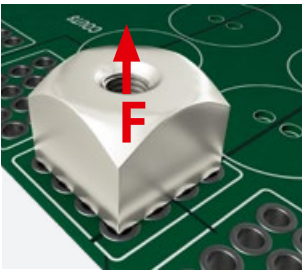
Ampacity up to 250 A



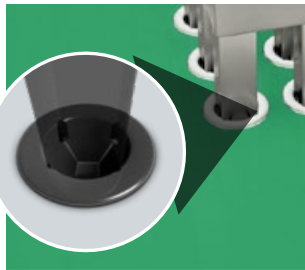
Simple & Quick Processing

Applications

- High current Wire-to-Board connections
- Mounting of copper bars on PCBs
- Angled assembling of cable, PCB and housing
- Mounting of IGBT modules



Extraction Force 10 kg/ Pin



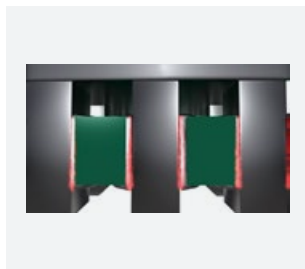
Press-Fit Technology

Advantages

- Simple & quick processing
- No cold solder joints
- High process safety
- Low self heating



Lowest Heat Development



Cold Welding between Materials

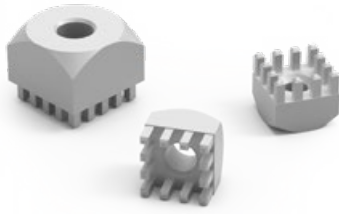
Characteristics

- Homogeneous material transition between pin and through-hole plating
- Contact resistance less than 200 $\mu\Omega$
- Gastight electrical and mechanical connection
- Extremely strong mechanical connection

WP-PFICFA

REDCUBE PRESS-FIT ASP

INTERNAL THREAD CIRCUMFERENCE



Characteristics

- Flexibility in processing and connection technologies
- Highest current ratings up to 250 A
- Wire-to-Board solutions
- Extremely low self-heating
- Robust mechanical connection

Applications

- High current Wire-to-Board connections up to 250 A
- Mounting of copper bars on PCBs
- Installation of laminated fuses
- Installation of IGBT modules
- Suitable for rough environmental condition

NEW!

Order Code	W (mm)	H (mm)	I _R (A)	T _i	T _l (mm)	Pins (pcs)
786201094	9	8	180	M4	5	12
786201095	9	8	180	M5	5	12
786201136	13	11	250	M6	8	16

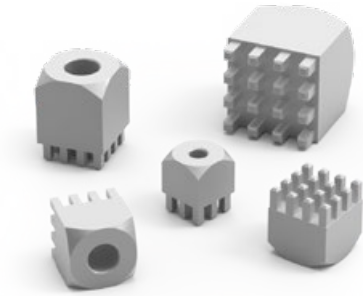
W: Width; H: Height; I_R: Rated Current; T_i: Inner Thread; T_l: Thread Length; Pins (Value): Pins



Learn more in our online catalog
www.we-online.com/wp-pficfa

WP-PFIFUA

REDCUBE PRESS-FIT ASP INTERNAL THREAD FULL PLAIN



Characteristics

- Flexibility in processing and connection technologies
- Highest current ratings up to 250 A
- Wire-to-Board solutions
- Extremely low self-heating
- Robust mechanical connection

Applications

- High current Wire-to-Board connections up to 250 A
- Mounting of copper bars on PCBs
- Installation of laminated fuses
- Installation of IGBT modules
- Suitable for rough environmental condition

NEW!

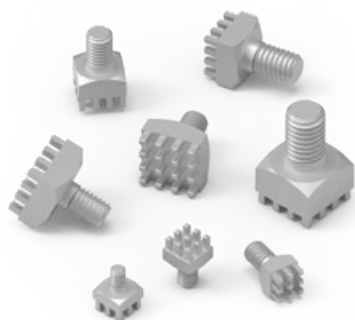
Order Code	W (mm)	H (mm)	I _R (A)	T _i	T _l (mm)	Pins (pcs)
786202073	7	9	130	M3	3.5	9
786202094	9	10	180	M4	4	16
786202095	9	10	180	M5	4	16
786202106	10	13.5	180	M6	6	16
786202148	14	16.5	250	M8	8	16

W: Width; H: Height; I_R: Rated Current; T_i: Inner Thread; T_l: Thread Length; Pins (Value): Pins



WP-PFEFUA

REDCUBE PRESS-FIT ASP EXTERNAL THREAD FULL PLAIN



Characteristics

- Flexibility in processing and connection technologies
- Highest current ratings up to 250 A
- Wire-to-Board solutions
- Extremely low self-heating
- Robust mechanical connection

Applications

- High current Wire-to-Board connections up to 250 A
- Mounting of copper bars on PCBs
- Installation of laminated fuses
- Installation of IGBT modules
- Suitable for rough environmental condition

NEW!

Order Code	W (mm)	H (mm)	I _R (A)	T _i	T _l (mm)	Pins (pcs)
786203073	7	10.5	130	M3	4	9
786203074	7	12	130	M4	4.6	9
786203075	7	15	130	M5	6.5	9
786203095	9	15.5	180	M5	6.5	16
786203106	10	17.5	180	M6	8	16
786203146	14	18.5	250	M6	8	16
786203148	14	23.5	250	M8	10.5	16

W: Width; H: Height; I_R: Rated Current; T_i: Inner Thread; T_l: Thread Length; Pins (Value): Pins



Learn more in our online catalog
www.we-online.com/wp-pfefua

SOLDERED CONTACT FINGER AUTOMOTIVE



Characteristics

- Suitable for pick & place
- Material: Copper-beryllium (CuBe) gold-plated (Au)
- Different types available
- Corrosion-resistant
- Wear-resistant
- High temperatures and compression have no influence on the excellent connection properties
- Reliable solderability

Applications

- Contact PCB to ground and housing
- Grounding of cooling units for high frequencies
- Connection of signal and power supply of two PCB on track
- Connection between PCB and external elements

Order Code	W (mm)	H (mm)	L (mm)	Recommended Working Height (mm)
78631271515	1.5	1.5	3.2	1 - 1.2
78631271520	1.5	2	2.7	1.6 - 1.7
78631302025	2	2.5	3	2 - 2.2
78631302030	2	3	3.15	2.5 - 2.7
78631302035	2	3.5	3	3 - 3.2
78631602040	2	4	6	5 - 5.7
78631452048	2	4.8	4.6	4 - 4.5
78631402053	2	5.3	4.1	4.4 - 5
78631472057	2	5.7	4.7	4.6 - 5.4
78631452070	2	7	4.5	6 - 6.7
78631452535	2.5	3.5	4.5	3 - 3.2
78631352540	2.5	4	3.5	3.4 - 3.7
78631702562	2.5	6.2	7.15	5 - 5.9
78631702513	2.5	13	7	10 - 12.5
78631503040	3	4	5	2.5 - 3.7
78631603010	3	10	6	8.3 - 9.7
78631603012	3	12	6	8 - 11.5

W: Width; H: Height; L: Length



WE-SMSA

SMT STEEL SPACER WITH THROUGH-HOLE



Characteristics

- Material: Steel
- Surface: Tin
- For distances from 1 mm up to 15 mm
- Full automation for fast and precise process
- High holding forces and torques
- Highest process reliability
- Instant removable polyimid tape

Applications

- Assembling of PCB to the housing and to other PCB

Size \emptyset 3.3

Order Code	L (mm)	\emptyset ID (mm)	\emptyset OD (mm)	\emptyset f (mm)
78614010960	1	4.2	6	3.3
78614015960	1.5			
78614020960	2			
78614025960	2.5			
78614030960	3			
78614040960	4			
78614050960	5			
78614060960	6			
78614070960	7			
78614080960	8			
78614090960	9			
78614100960	10			
78614110960	11			
78614120960	12			
78614130960	13			
78614140960	14			
78614150960	15			

L: Length; \emptyset ID: Inner Diameter; \emptyset OD: Outer Diameter; \emptyset f: Hole Diameter

Size M3

Order Code	L (mm)	Ø ID (mm)	Ø OD (mm)
78614010360	1	4.2	6
78614015360	1.5		
78614020360	2		
78614025360	2.5		
78614030360	3		
78614040360	4		
78614050360	5		
78614060360	6		
78614070360	7		
78614080360	8		
78614090360	9		
78614100360	10		
78614110360	11		
78614120360	12		
78614130360	13		
78614140360	14		
78614150360	15		

L: Length; Ø ID: Inner Diameter; Ø OD: Outer Diameter



NOTES

NOTES

ELECTRONIC & ELECTROMECHANICAL COMPONENTS



EMC Components



Power Magnetics



Signal & Communications



Quartz & Oscillators



Capacitors



Resistors



Automotive Standard Products



Optoelectronics



Power Modules



Digital Isolators



Radio Modules



Sensors



Connectors



Fuseholders



Switches



Assembly Technique



REDCUBE Terminals

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- Design-in support
- Reference designs with leading IC manufacturers
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- Technical consulting through our technical sales team and field application engineers
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- Online platform **REDEXPERT**
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- Design kits with free refill
- Component libraries for CAD and CAE tools
- Application handbooks in hardcopy & e-book

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- EMC test lab racks
- EMC lab search engine

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- Longtime availability of components
- Smart PCN
- Customer API
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