AUTOMOTIVE STANDARD PRODUCTS 2022/2023

WÜRTH ELEKTRONIK MORE THAN YOU EXPECT

THE WÜRTH ELEKTRONIK
eiSos GROUP

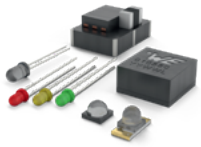
THE WÜRTH ELEKTRONIK GROUP

Employees: 8,000
Sales: 1.09 Bn. Euro

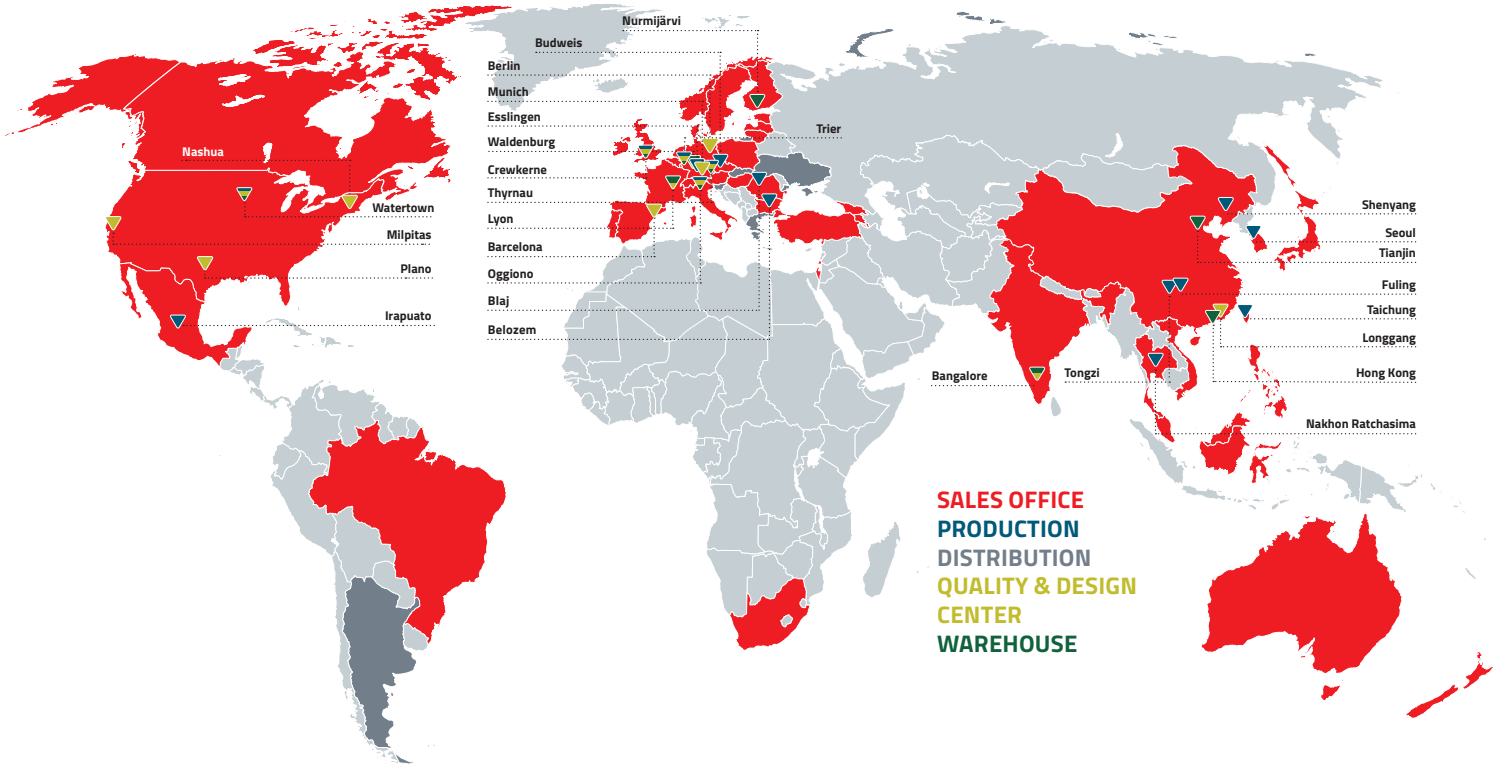
WÜRTH ELEKTRONIK eiSos GROUP

PRINTED CIRCUIT BOARDS

INTELLIGENT POWER AND CONTROL SYSTEMS

Passive Components	Power Modules & Optoelectronics	Electromechanical Components	Automotive & eMobility	Wireless Connectivity & Sensors
				

GLOBALLY AVAILABLE. LOCALLY PRESENT.

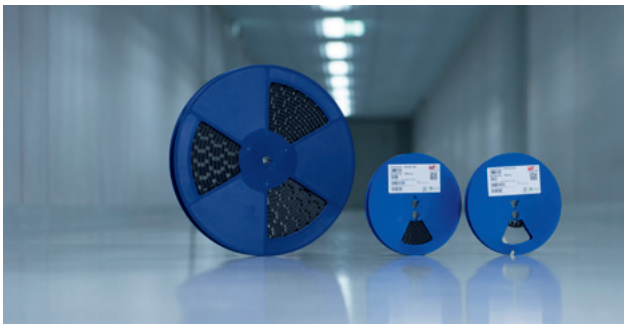


MORE
THAN YOU EXPECT

SAY YES TO OUR FAST AND COST-FREE DESIGN-IN SUPPORT

WE TAILOR THE QUANTITIES TO YOUR NEEDS

ALL CATALOGUE PRODUCTS AVAILABLE EX STOCK

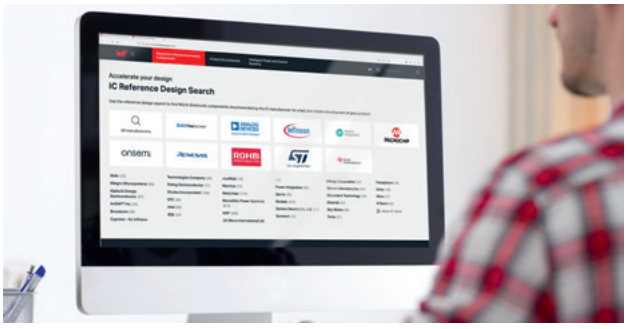


RE-REELING SERVICE

DESIGN SEMINARS AND WEBINARS FREE OF CHARGE

ONLINE DESIGN PLATFORM FOR COMPONENT SELECTION & SIMULATION

DESIGN KITS WITH LIFELONG FREE REFILL



REFERENCE DESIGNS OF LEADING IC MANUFACTURERS

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
- Environmetal 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

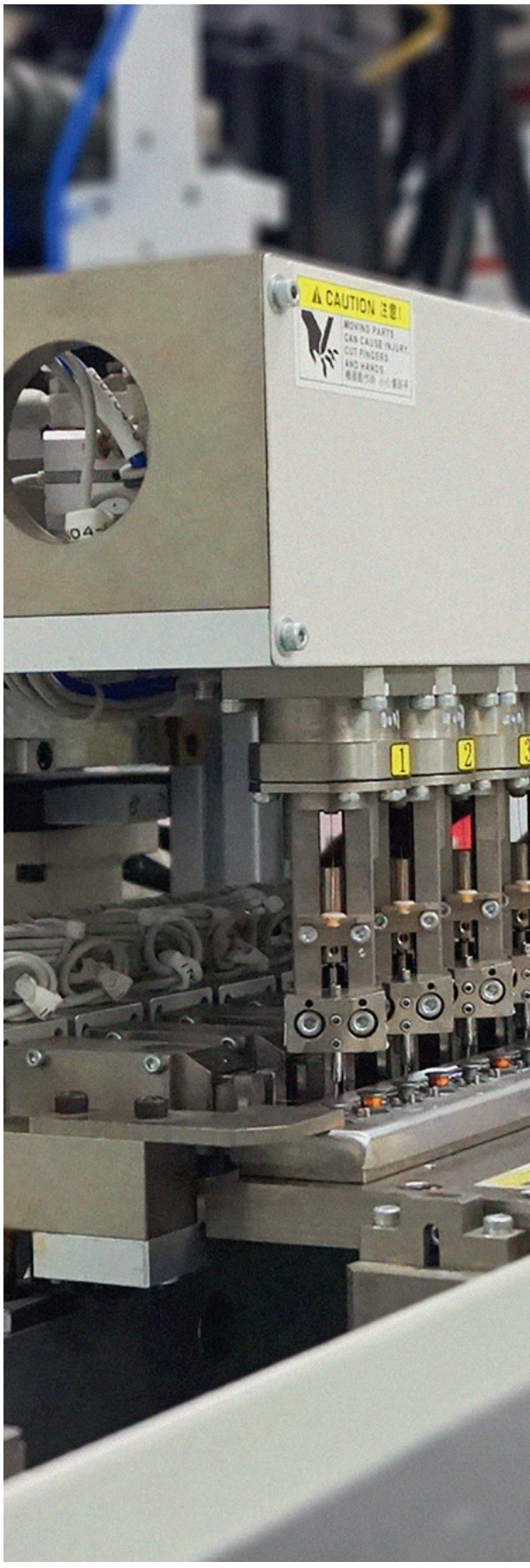
We work with the common quality methods like:

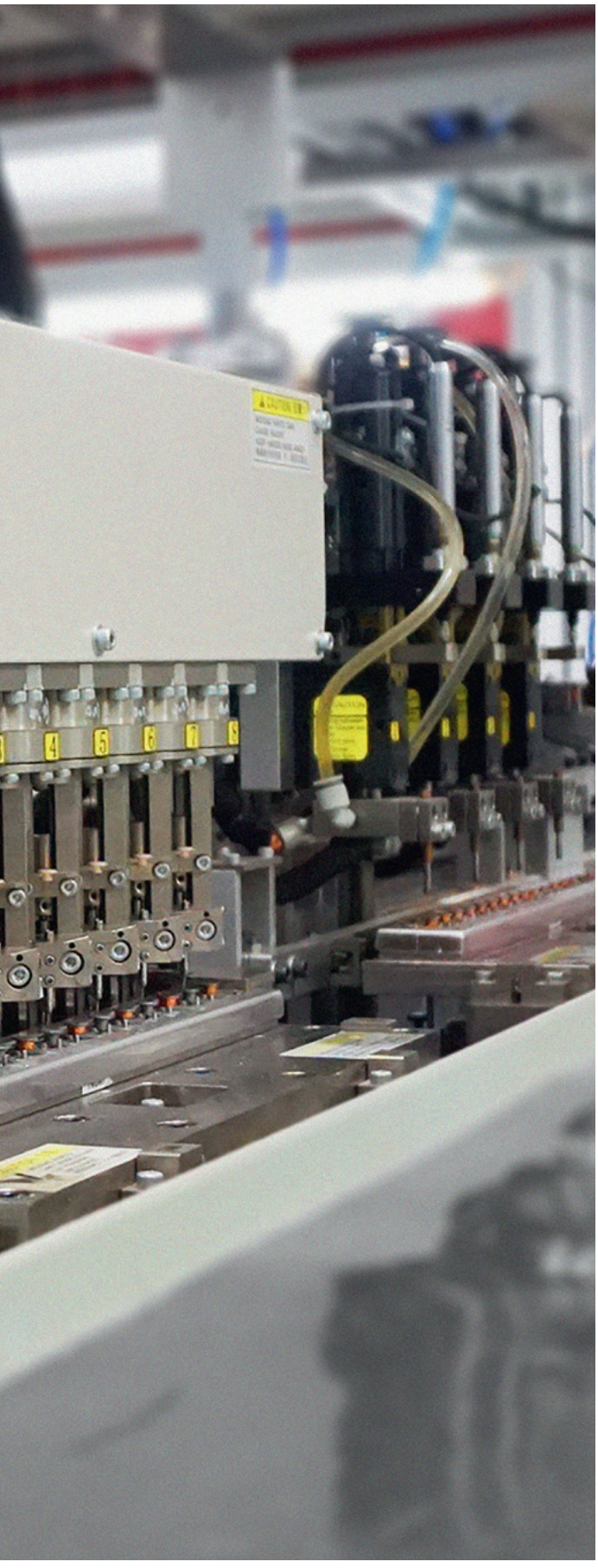
- Quality system with PDCA cycle
- Risk prevention with FMEA process
- Quality planning with APQP & PPAP
- Complaint handling with 8D method
- Change management with PCN / PTN
- FiFo with lot no & date code traceability
- Functional component and product qualifications
- IATF 16949:2016
- Feasibility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

AEC Q200 **150°C** GRADE 0

AEC Q200 **125°C** GRADE 1

AEC Q200 **105°C** GRADE 2





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

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.

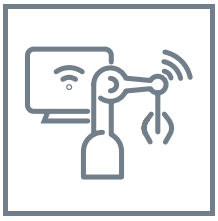
2. AEC-Q200 qualification

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.

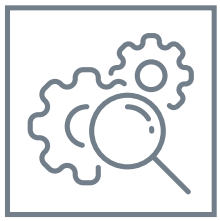


4. High process capability level

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

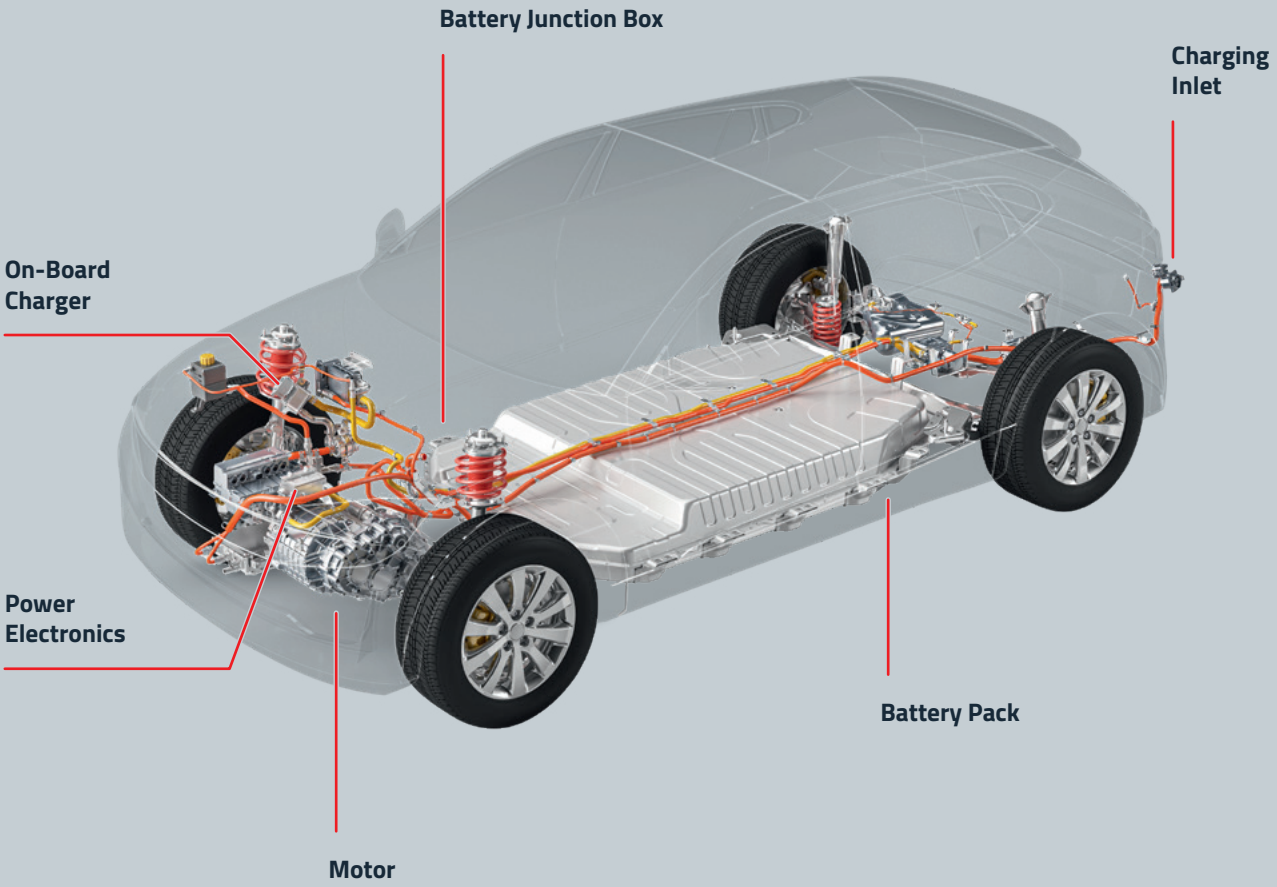
Additional quality controls can be carried out efficiently only if they are used for previously evaluated production lines. Even two identical manufacturing processes on different production lines can have different results. So process-based influences are difficult to generalize, which is why we specially 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 °C/ +150 °C. It is shown by the following sign:

Temperature range up to +150 °C

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.

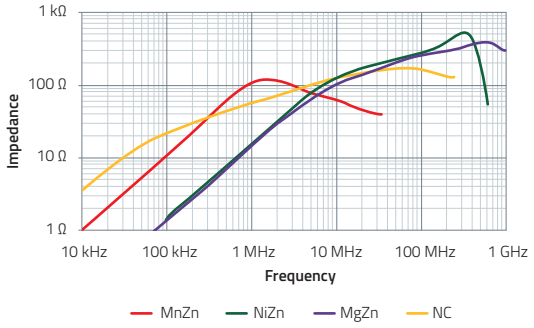
Standard ferrite cable core suppression elements in axial as well in toroidal form are suitable for a wide range of applications with medium and high frequencies. For higher frequencies, these contain a magnesium component. A very wide frequency range is covered by cable ferrites with a new nanocrystalline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

Applications matrix

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

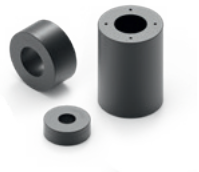
It is essential for the following automotive applications:

- 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, specially designed for many kinds of applications
- The special spectrum suppression is for medium and high frequency noise
- Also available in larger sizes



EMI suppression for higher freq. range

- WE-AENA cable ferrites with the latest NC (nano-crystalline) 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

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-AEFA
AXIAL EMI SUPPRESSION FERRITE

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

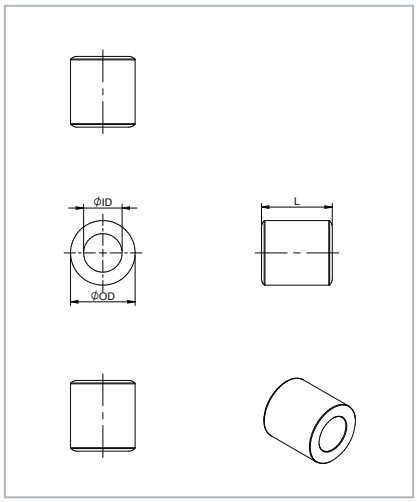
Temperature range up to +150 °C

Order Code	Ø Cable (mm)	Z @ 25 MHz 1 turn (Ω)	Z @ 100 MHz 1 turn (Ω)	Ø ID (mm)	Ø 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

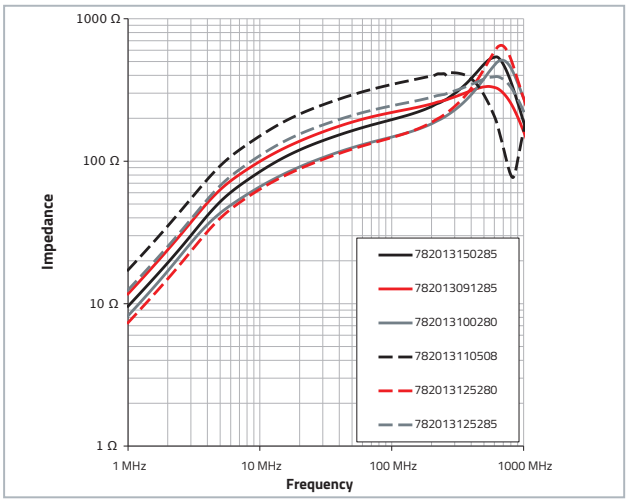
Ø ID: Inner Diameter; Ø OD: Outer Diameter; H: Height; Ø Cable: Cable Diameter; Z @ 25 MHz 1 turn: Impedance @ 25 MHz 1 turn; Z @ 100 MHz 1 turn: Impedance @ 100 MHz 1 turn

Check the complete series:
www.we-online.com/we-aefa

Dimensions: [mm]



Impedance vs. Frequency



WE-TEFA
TOROIDAL EMI SUPPRESSION FERRITE

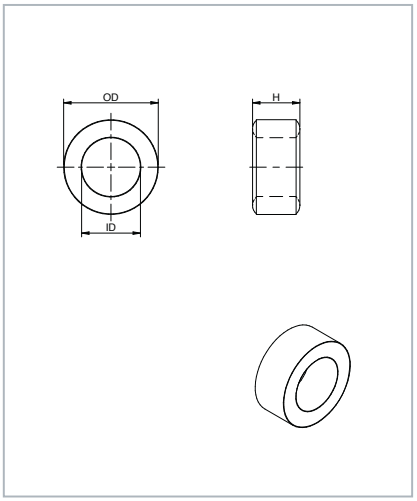
Characteristics
- Ferrite core made of MgZn, a material which works in a wider frequency range than NiZn
- Many different sizes for the best possible interference suppression in automotive applications
- Operating temperature: -55 °C up to +140 °C
- AEC-Q200

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

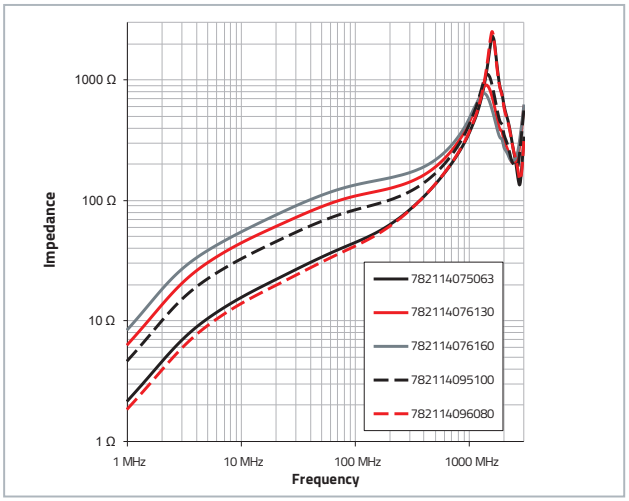
Order Code	Ø Cable (mm)	Z @ 25 MHz 1 turn (Ω)	Z @ 100 MHz 1 turn (Ω)	Ø ID (mm)	Ø OD (mm)	H (mm)
782114075063	7.5	22	42	7.9	12.7	6.35
782114076130	7.6	67	107	8	16.5	13
782114076160	7.6	83	131	8	16.5	16
782114096080	9.6	22	40	10	14	8
782114095100	9.5	50	85	10	20	10
782114133064	13.3	25	45	13.8	22.5	6.4
782114155130	15.5	53	92	16	28	13
782114155200	15.5	74	125	16	28	20

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

Dimensions: [mm]

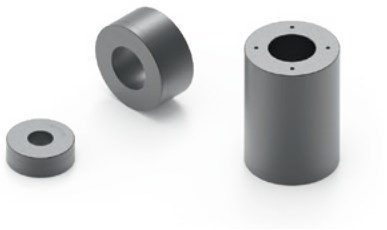


Impedance vs. Frequency



Check the complete series:
www.we-online.com/we-tefa

WE-AENA
AXIAL EMI SUPPRESSION NANOCRYSTALLINE



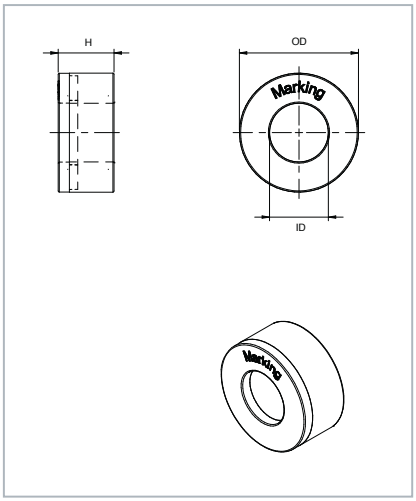
Characteristics
- Core made of Nanocrystalline, a material which works in a wider frequency range than NiZn
- Many different sizes for the best possible interference suppression in automotive applications
- Operating temperature: -40 °C up to +125 °C
- AEC-Q200

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

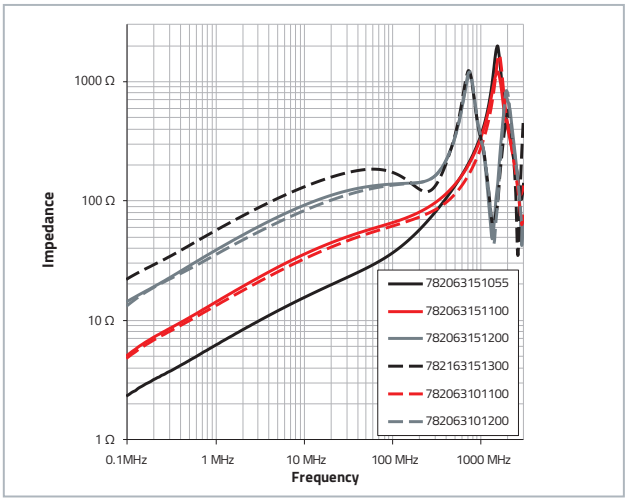
Order Code	Ø Cable (mm)	Z @ 1 MHz 1 turn (Ω)	Ø ID (mm)	Ø OD (mm)	H (mm)
782063051055	5.2	7	5.5	15.3	5.5
782063051100	5.2	16	5.5	15.3	10
782163051200	5.2	45	5.5	15.3	20
782063101055	10.2	6.5	10.5	21.3	5.5
782063101100	10.2	15.6	10.5	21.3	10
782063101200	10.2	34	10.5	21.3	20
782163101300	10.2	60	10.5	21.3	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 ID: Inner Diameter; Ø OD: Outer Diameter; H: Height; Ø Cable: Cable Diameter; Z @ 1 MHz 1 turn: Impedance @ 1 MHz 1 turn

Dimensions: [mm]

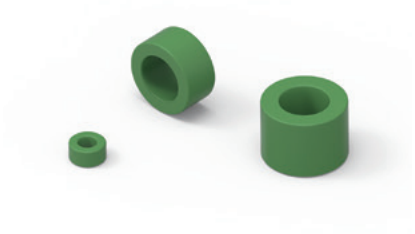


Impedance vs. Frequency



Check the complete series:
www.we-online.com/we-aena

WE-TEMA
TOROIDAL EMI SUPPRESSION FERRITE



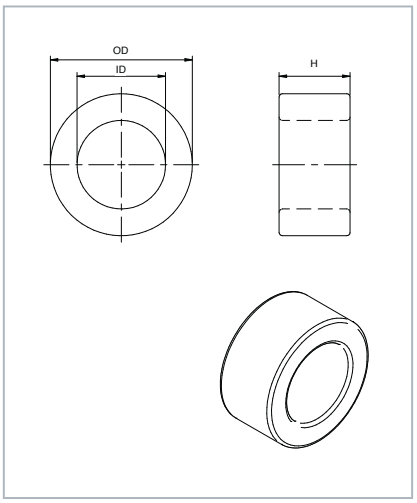
Characteristics
- Core made of MnZn, a good option for EMI suppression
- UL coated
- High permeability
- Operating temperature: -50 °C up to +150 °C
- AEC-Q200

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

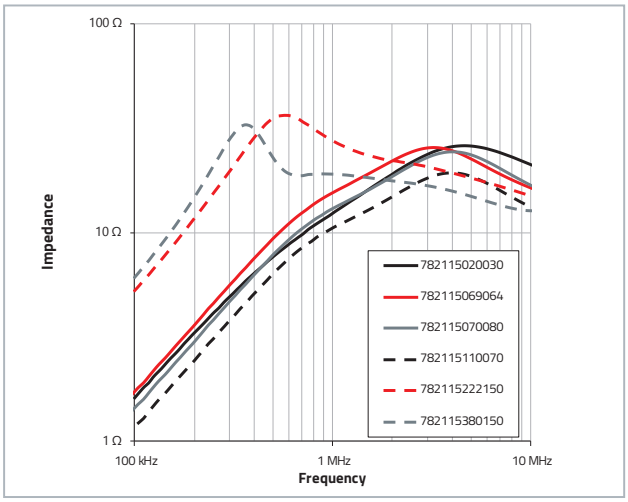
Order Code	Ø Cable (mm)	Z @ 100 kHz 1 turn (Ω)	Z @ 1 MHz 1 turn (Ω)	Ø ID (mm)	Ø OD (mm)	H (mm)
782115020030	2.1	1.5	12	2.7	6.3	5.36
782115069064	7.02	2.22	15.5	7.62	13	6.55
782115070080	9.1	2.03	13	9.7	14.3	5.5
782115110070	11.1	1.51	10.5	11.7	16.3	4.45
782115222150	20.8	5.15	–	21.6	38.4	24.5
782115380150	38.1	5.88	–	39.4	80.6	16.0

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

Dimensions: [mm]



Impedance vs. Frequency



Check the complete series:
www.we-online.com/we-tema

WE-CAR-TEC
SNAP FERRITE

Characteristics

- 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
- Plastic housing: UL94 V0
- Operating temperature: –50 °C up to +105 °C
- Core material: NiZn
- AEC-Q200

Applications

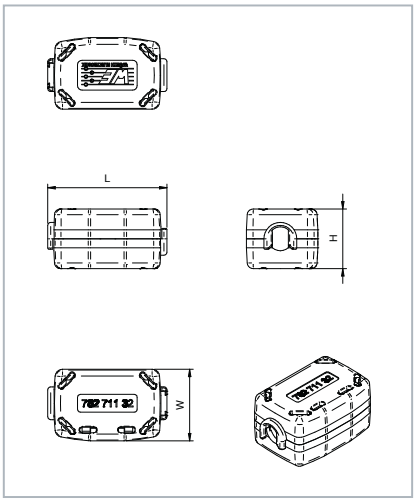
- EMC ferrite for the additional EMI suppression in the frequency range of 1 MHz up to 1 GHz
- For round cables from 3.5 mm up to 8.5 mm
- Reusable because of the STAR-KEY technology therefore perfect for test and measuring purposes in EMC labs

With reliable flexible cable fixing, developed in-house

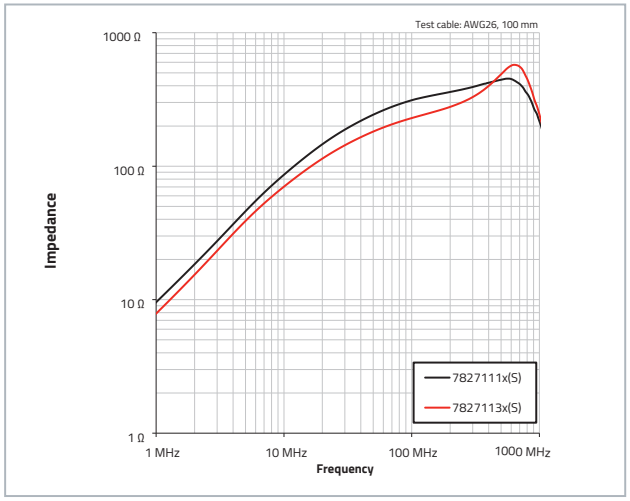
Order Code	Ø Cable (mm)	Z @ 25 MHz 1 turn (Ω)	Z @ 100 MHz 1 turn (Ω)	L (mm)	W (mm)	H (mm)	Color
78271111S	3.5 - 5	175	316	41	23.4	18	Black
78271111	3.5 - 5	175	316	41	23.4	18	Grey
78271112S	4.5 - 6	175	316	41	23.4	18	Black
78271112	4.5 - 6	175	316	41	23.4	18	Grey
78271131S	6 - 7.5	125	235	40	24	20	Black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

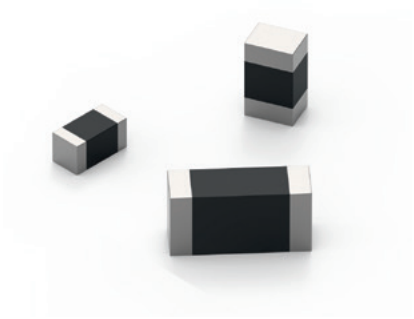


Impedance vs. Frequency



Check the complete series:
www.we-online.com/we-car-tec

WE-CBA
SMT EMI SUPPRESSION FERRITE BEAD



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

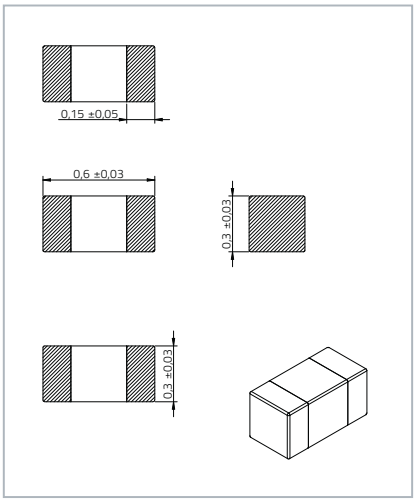
New!

SIZE 0201

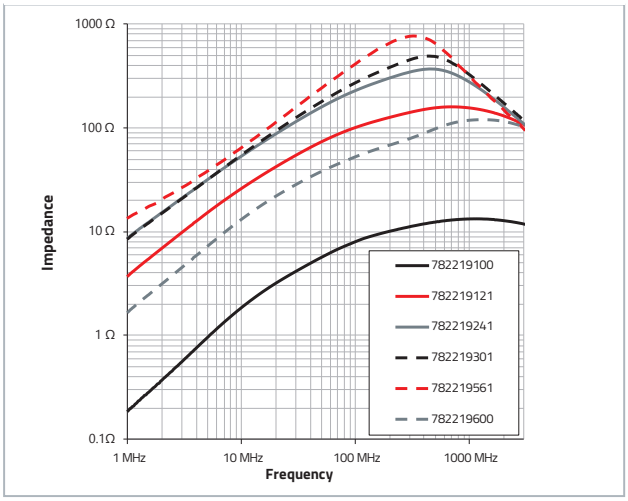
Order Code	Z @ 100 MHz (Ω)	Z_{max} (Ω)	I_R (mA)	Test Condition I_R	R_{DC} (Ω)	Type
782219100	10	12.6	650	ΔT = 40 K	0.055	Wide Band
782219600	60	135	400		0.25	
782219121	120	259	250		0.29	
782219241	240	536	300		0.57	
782219301	300	455	400		0.61	
782219561	560	750	250		0.75	

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

Dimensions: [mm]



Impedance vs. Frequency



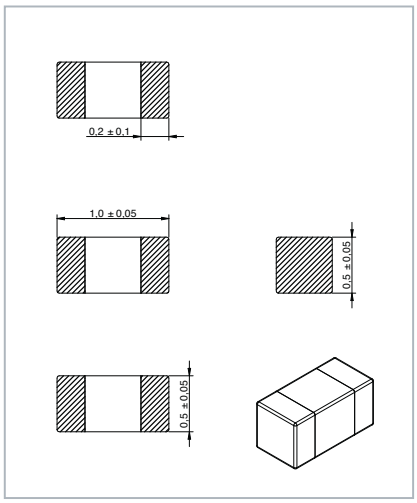
Check the complete series:
www.we-online.com/we-cba

Size 0402

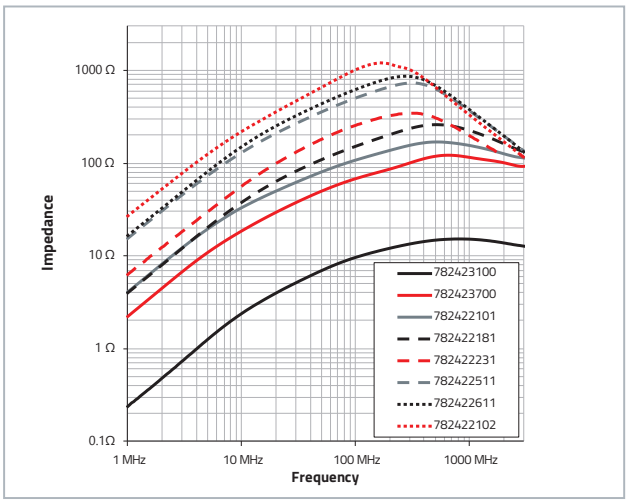
	Order Code	Z @ 100 MHz (Ω)	Z_{max} (Ω)	I_R (mA)	Test Condition I_R	R_{DC} (Ω)	Type
	782423100	10	17	1500	ΔT = 40 K	0.03	High Current
	782423700	70	140	1000	ΔT = 40 K	0.09	High Current
	782422101	100	180	500	ΔT = 20 K	0.3	Wide Band
NEW!	**782429111**	110	195	1200	ΔT = 40 K	0.09	Wide Band
	782422121	120	200	500	ΔT = 40 K	0.2	Wide Band
NEW!	**782429161**	160	280	1000	ΔT = 40 K	0.15	High Current
	782422181	180	260	400	ΔT = 40 K	0.3	Wide Band
	782422221	220	330	400	ΔT = 20 K	0.3	Wide Band
	782422231	220	360	900	ΔT = 40 K	0.35	Wide Band
	782422241	240	290	300	ΔT = 40 K	0.35	Wide Band
NEW!	**782429261**	260	375	1000	ΔT = 40 K	0.15	High Current
	782422301	300	400	200	ΔT = 40 K	0.7	Wide Band
	782422331	330	640	300	ΔT = 20 K	0.5	Wide Band
NEW!	**782429461**	460	1250	500	ΔT = 40 K	0.55	High Speed
	782422511	510	730	200	ΔT = 20 K	0.8	Wide Band
NEW!	**782429601**	600	720	850	ΔT = 40 K	0.25	Wide Band
	782422601	600	800	200	ΔT = 20 K	0.8	Wide Band
	782422611	600	900	300	ΔT = 40 K	0.6	Wide Band
NEW!	**782429102**	1000	1157	480	ΔT = 40 K	0.48	Wide Band
	782422102	1000	1200	200	ΔT = 20 K	1	Wide Band
NEW!	**782429152**	1500	1533	500	ΔT = 40 K	0.5	Wide Band
NEW!	**782429182**	1800	2700	210	ΔT = 40 K	2.1	High Frequency

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



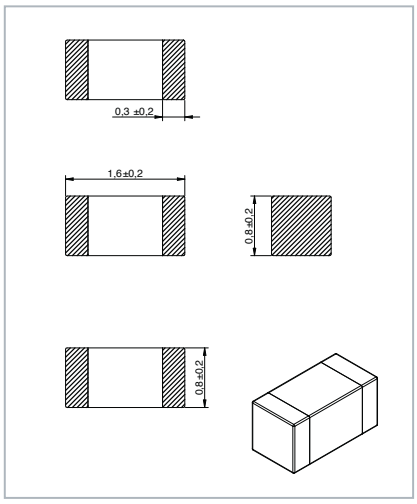
WE-CBA
SMT EMI SUPPRESSION FERRITE BEAD

Size 0603

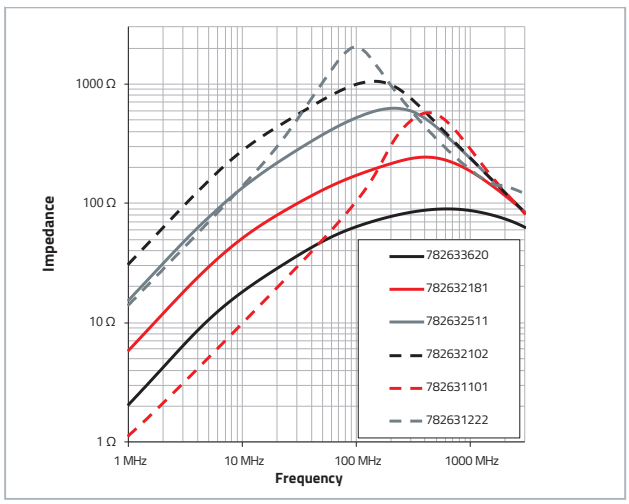
	Order Code	Z @ 100 MHz (Ω)	Z_{max} (Ω)	I_R (mA)	Test Condition I_R	R_{DC} (Ω)	Type
NEW!	**782639220**	22	41	7500	ΔT = 40 K	0.004	High Current
	782632620	62	95	500	ΔT = 20 K	0.15	Wide Band
	782633620	62	98	2500	ΔT = 40 K	0.04	High Current
	782631111	100	125	500	ΔT = 40 K	0.12	Wide Band
	782631101	100	610	500	ΔT = 20 K	0.2	High Speed
	782631141	120	180	2000	ΔT = 40 K	0.05	High Current
	782632121	120	190	500	ΔT = 20 K	0.2	Wide Band
	782631131	120	200	500	ΔT = 40 K	0.12	Wide Band
	782632181	180	280	500	ΔT = 20 K	0.2	Wide Band
	782631331	330	690	400	ΔT = 20 K	0.25	High Speed
	782632511	510	610	300	ΔT = 20 K	0.35	Wide Band
NEW!	**782639601**	600	634	1500	ΔT = 40 K	0.1	High Current
	782633601	600	660	1000	ΔT = 40 K	0.2	High Current
	782632102	1000	1100	200	ΔT = 20 K	0.5	Wide Band
	782631182	1800	2300	100	ΔT = 20 K	0.75	High Speed
	782631222	2200	2250	150	ΔT = 20 K	0.8	High Speed

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

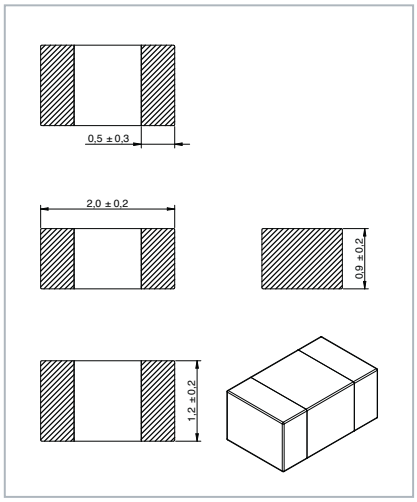


Size 0805

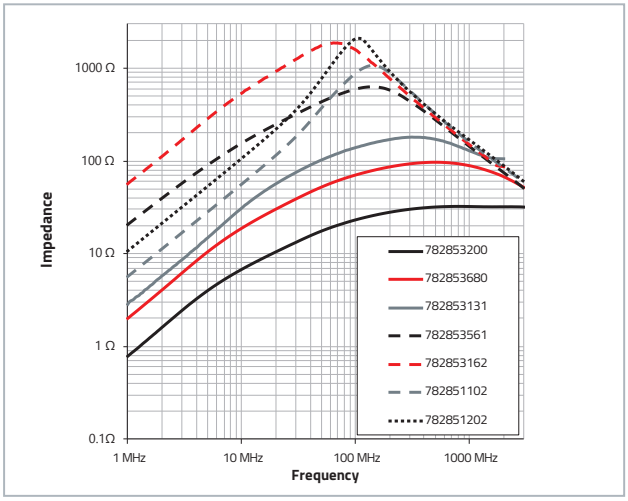
Order Code	Z @ 100 MHz (Ω)	Z_{max} (Ω)	I_R (mA)	Test Condition I_R	R_{DC} (Ω)	Type
782853200	20	35	5000	ΔT = 40 K	0.008	High Current
782853270	27	45	4000	ΔT = 40 K	0.015	High Current
782853680	68	110	3000	ΔT = 40 K	0.025	High Current
782853910	91	105	2000	ΔT = 40 K	0.06	High Current
782853121	120	180	2500	ΔT = 40 K	0.035	High Current
782853131	120	180	3000	ΔT = 40 K	0.03	High Current
782853221	220	290	2000	ΔT = 40 K	0.05	High Current
782853231	220	330	3000	ΔT = 40 K	0.05	High Current
782853301	300	350	3000	ΔT = 40 K	0.05	High Current
782853321	320	370	2000	ΔT = 40 K	0.05	High Current
782853331	330	375	3000	ΔT = 40 K	0.05	High Current
782853401	400	500	300	ΔT = 40 K	0.3	Wide Band
782853561	560	600	1500	ΔT = 40 K	0.1	High Current
782853601	600	700	500	ΔT = 40 K	0.3	Wide Band
782853611	600	700	2000	ΔT = 40 K	0.11	High Current
782853701	700	730	1500	ΔT = 40 K	0.1	High Current
782853102	1000	1000	1000	ΔT = 40 K	0.3	High Current
782851102	1000	1100	300	ΔT = 20 K	0.35	High Speed
782853112	1100	1400	800	ΔT = 40 K	0.3	High Current
782853152	1500	1800	700	ΔT = 40 K	0.35	High Current
782853162	1500	1800	1000	ΔT = 40 K	0.3	High Current
782851212	2000	2000	400	ΔT = 20 K	0.42	High Speed
782851202	2200	2200	200	ΔT = 20 K	0.45	High Speed

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



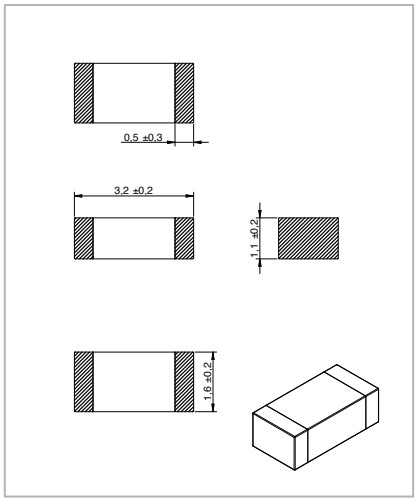
WE-CBA
SMT EMI SUPPRESSION FERRITE BEAD

Size 1206

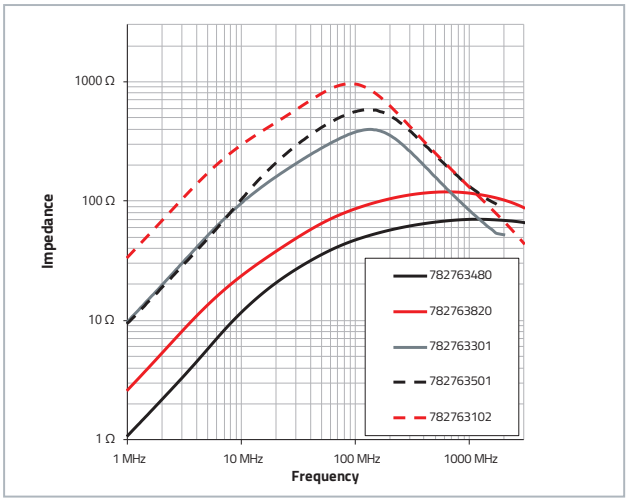
Order Code	Z @ 100 MHz (Ω)	Z_{max} (Ω)	I_R (mA)	Test Condition I_R	R_{DC} (Ω)	Type
782763480	48	90	6000	ΔT = 40 K	0.005	High Current
782763700	70	105	500	ΔT = 40 K	0.15	High Speed
782763800	80	160	4000	ΔT = 40 K	0.02	High Current
782763820	82	130	3000	ΔT = 40 K	0.025	High Current
782763301	300	330	3000	ΔT = 40 K	0.06	High Current
782762301	300	360	500	ΔT = 20 K	0.1	Wide Band
782763501	500	610	2500	ΔT = 40 K	0.06	High Current
782763601	600	650	2500	ΔT = 40 K	0.048	High Current
782763621	620	620	1500	ΔT = 40 K	0.1	High Current
782763102	1000	1200	1000	ΔT = 40 K	0.3	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

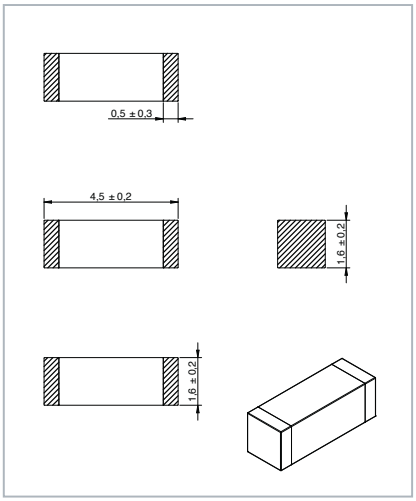


Size 1806

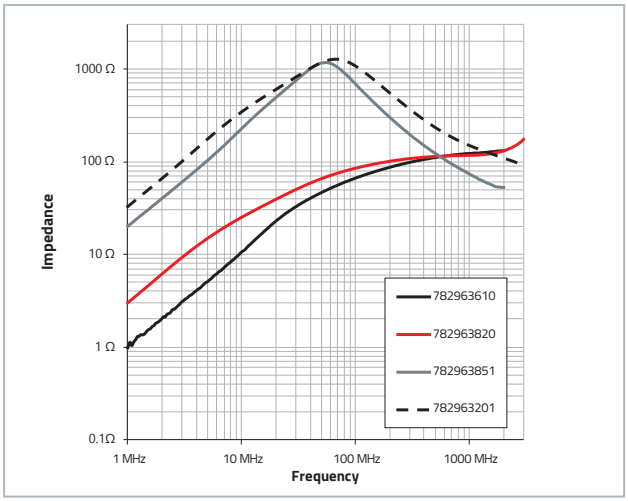
Order Code	Z @ 100 MHz (Ω)	Z_{max} (Ω)	I_R (mA)	Test Condition I_R	R_{DC} (Ω)	Type
782963560	56	90	5000	ΔT = 40 K	0.008	High Current
782963610	60	120	6000		0.008	
782963600	60	120	6000		0.01	
782963800	80	140	3000		0.04	
782963820	82	110	3500		0.02	
782963851	850	1250	1500		0.1	
782963201	1000	1020	1500		0.09	

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

Dimensions: [mm]



Impedance vs. Frequency



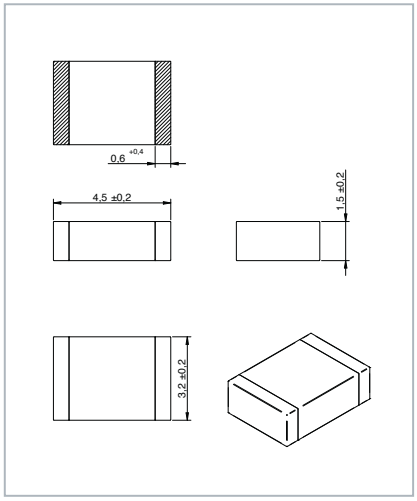
WE-CBA
SMT EMI SUPPRESSION FERRITE BEAD

Size 1812

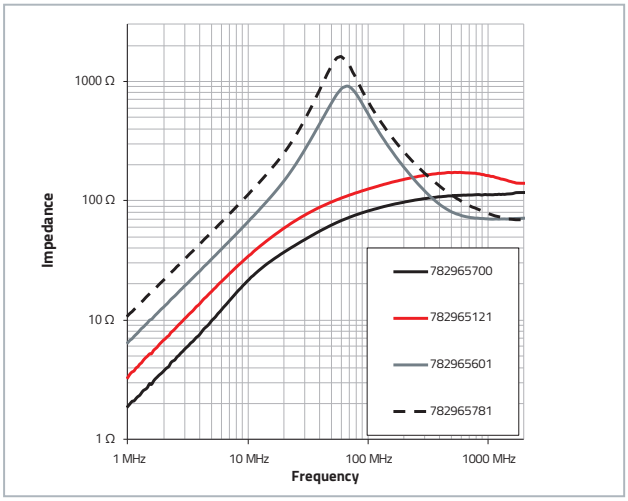
Order Code	Z @ 100 MHz (Ω)	Z_{max} (Ω)	I_R (mA)	Test Condition I_R	R_{DC} (Ω)	Type
782965700	70	120	6000	ΔT = 40 K	0.008	High Current
782965121	120	190	3000		0.04	
782965601	600	900	3000		0.04	
782965781	780	1300	3000		0.04	

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

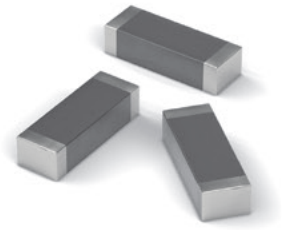
Dimensions: [mm]



Impedance vs. Frequency



WE-MPSA
EMI MULTILAYER POWER SUPPRESSION BEAD



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

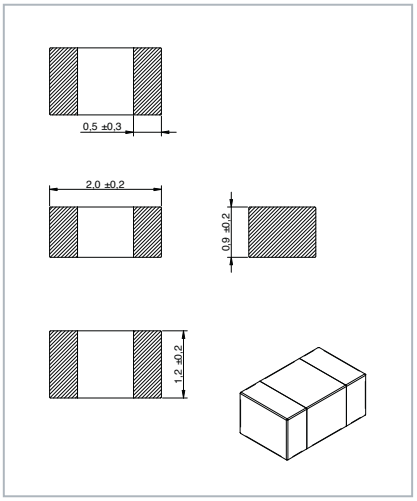
Applications
- Filter with high inrush current peaks
- Applications for noise reduction at powertrains, body control and infotainment systems
- Motor interference suppression
- Battery management systems, DC/DC converters, audio, etc.
- Broadband suppression

Size 0805

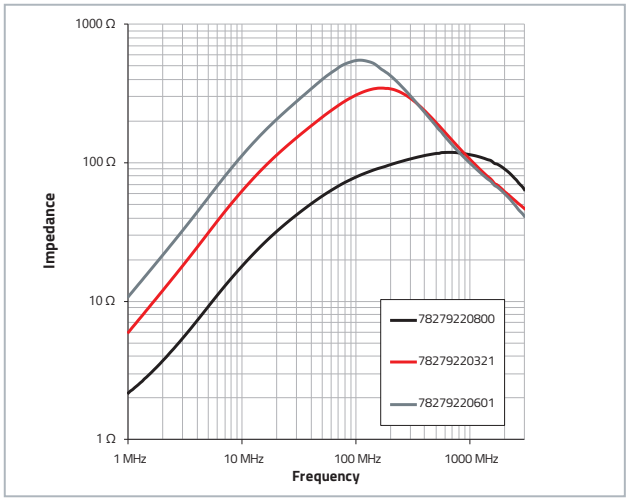
Order Code	Z @ 100 MHz (Ω)	Z_{max} (Ω)	I_R (A)	Test Condition I_R	R_{DC} (mΩ)	Type
78279220800	80	120	4	ΔT = 40 K	18	High Current
78279220321	320	347	2.5		50	
78279220601	600	551	2.1		80	

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



Check the complete series:
www.we-online.com/we-mpsa

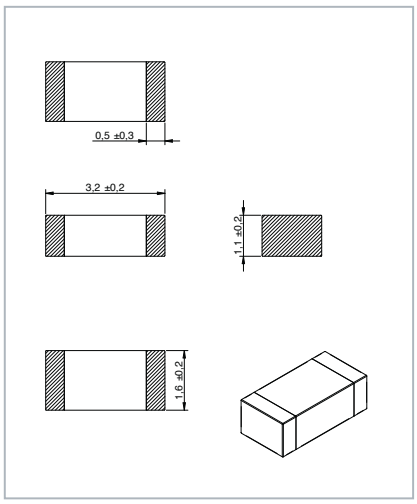
WE-MPSA
EMI MULTILAYER POWER SUPPRESSION BEAD

Size 1206

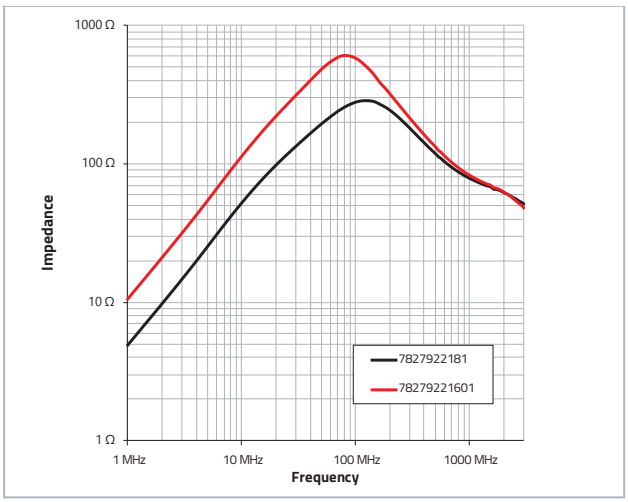
Order Code	Z @ 100 MHz (Ω)	Z_{max} (Ω)	I_R (A)	Test Condition I_R	R_{DC} (mΩ)	Type
78279221281	280	288	3.5	ΔT = 40 K	35	High Current
78279221601	600	610	2.5		50	

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

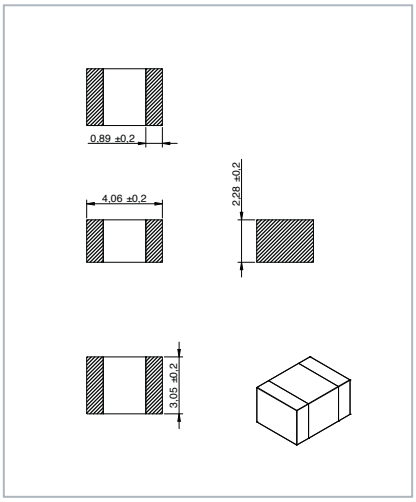


Size 1612

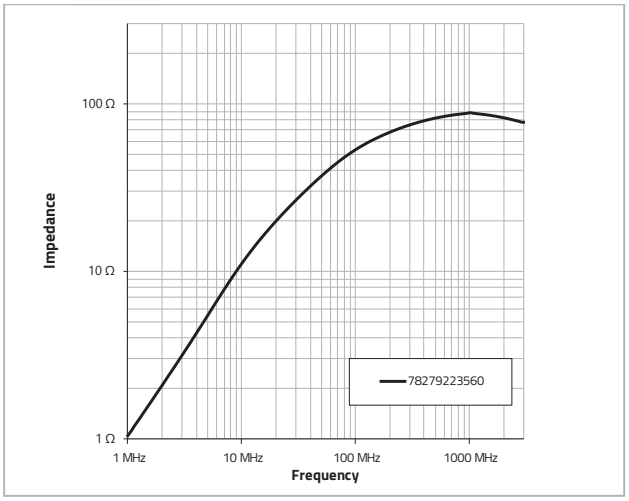
Order Code	Z @ 100 MHz (Ω)	Z_{max} (Ω)	I_R (A)	Test Condition I_R	R_{DC} (mΩ)	Type
78279223560	56	90	10	ΔT = 40 K	4	High Current

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

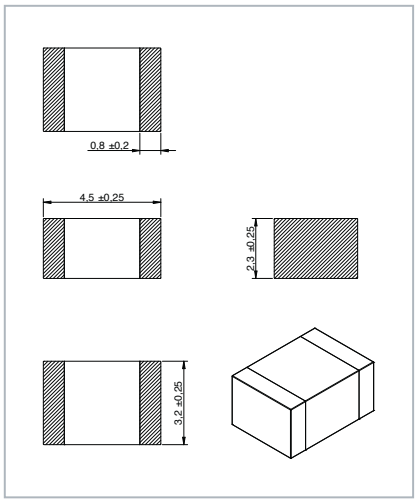


Size 1812

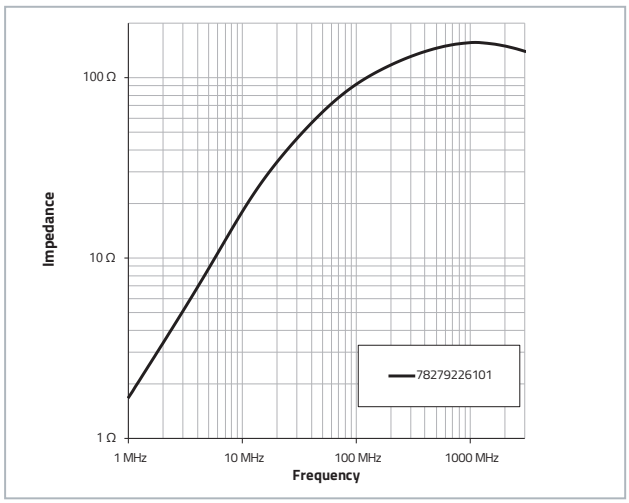
Order Code	Z @ 100 MHz (Ω)	Z_{max} (Ω)	I_R (A)	Test Condition I_R	R_{DC} (mΩ)	Type
78279226101	100	160	8	ΔT = 40 K	6	High Current

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



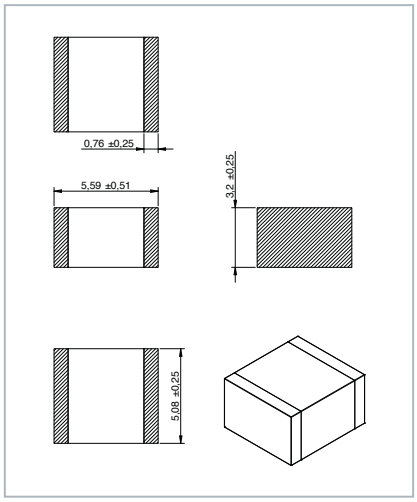
WE-MPSA
EMI MULTILAYER POWER SUPPRESSION BEAD

Size 2220

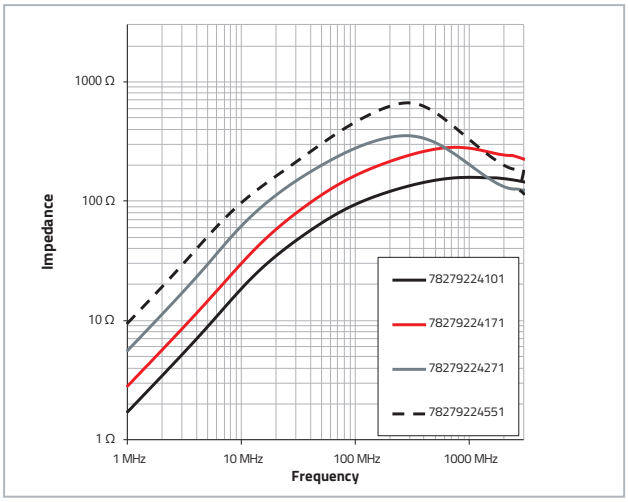
Order Code	Z @ 100 MHz (Ω)	Z_{max} (Ω)	I_R (A)	Test Condition I_R	R_{DC} (mΩ)	Type
78279224101	100	160	7	ΔT = 40 K	5	High Current
78279224151	150	230	5		10	
78279224171	170	280	4		15	
78279224181	180	240	5		10	
78279224251	250	300	4		12	
78279224271	270	350	4		20	
78279224401	400	460	4.5		20	
78279224551	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

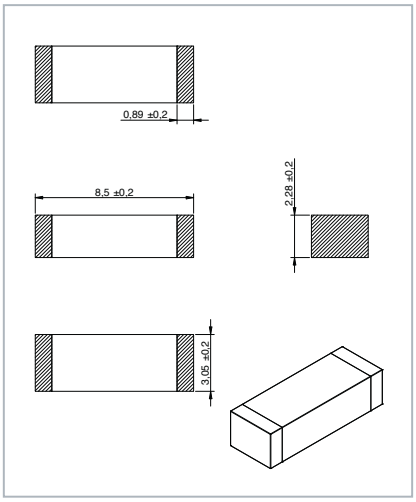


Size 3312

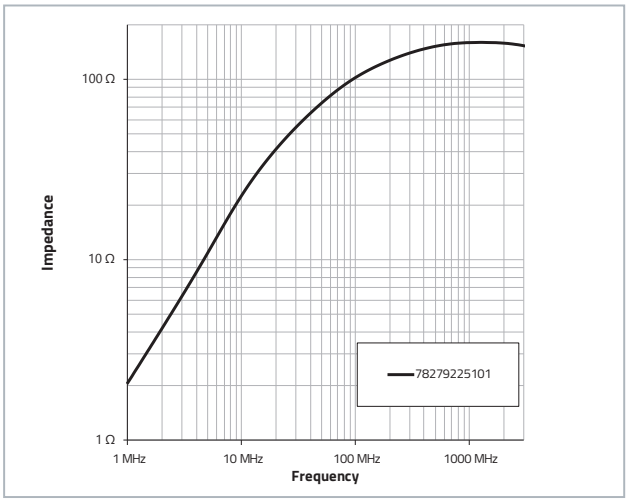
Order Code	Z @ 100 MHz (Ω)	Z_{max} (Ω)	I_R (A)	Test Condition I_R	R_{DC} (mΩ)	Type
78279225101	100	160	10	ΔT = 40 K	4	High Current

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

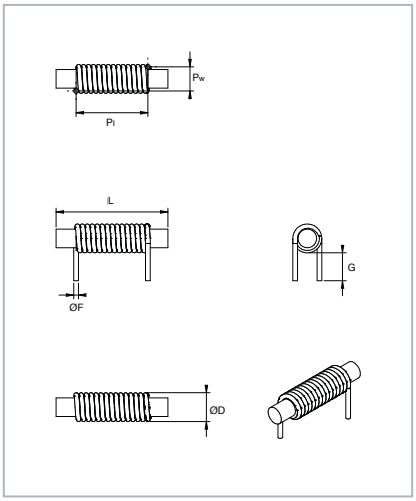
Characteristics
- High current capability
- Very reliable mechanical design
- Very high magnetic saturation
- Operating temperature: up to +150 °C
- AEC-Q200

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

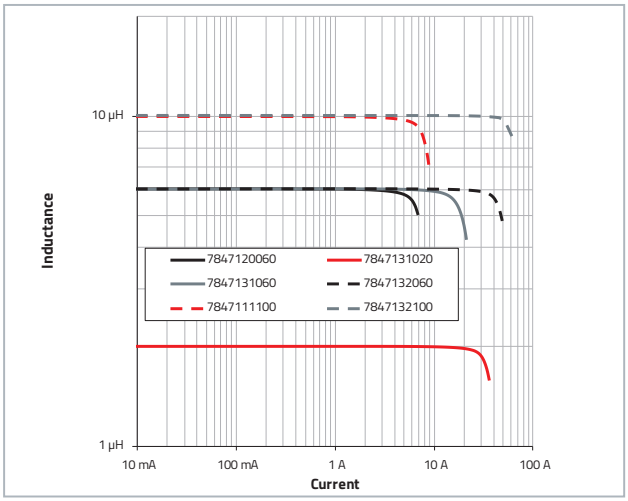
Order Code	I_R (A)	I_{SAT} (A)	R_{DC} (mΩ)	L (µH)	L (mm)	P_I (mm)	Ø D (mm)	P_w (mm)	G (mm)	Ø F (mm)
7847111100	3	7	33	10	18.5	13.5	5.2	4.6	3	0.5
7847120060	3.4	6.5	22	6	15.4	11.5	4.2	3.6		0.5
7847110020	4	5	11	2	12.3	7.7	3.2	2.6		0.5
7847121100	5.5	11.5	15.1	10	22.5	18.8	6.9	5.9		0.8
7847121060	6.4	15	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

Dimensions: [mm]

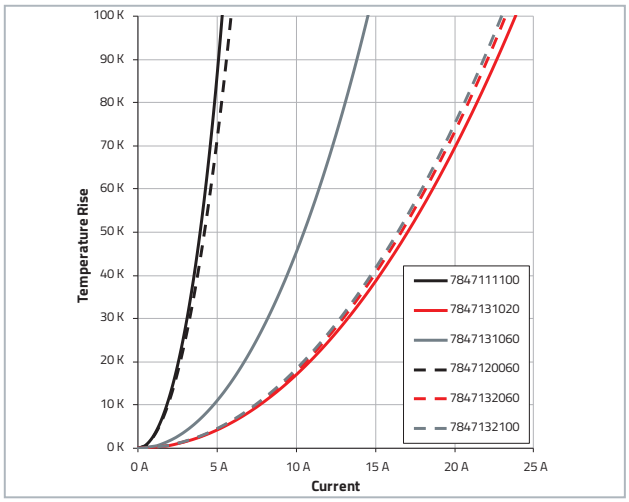


Inductance vs. Current

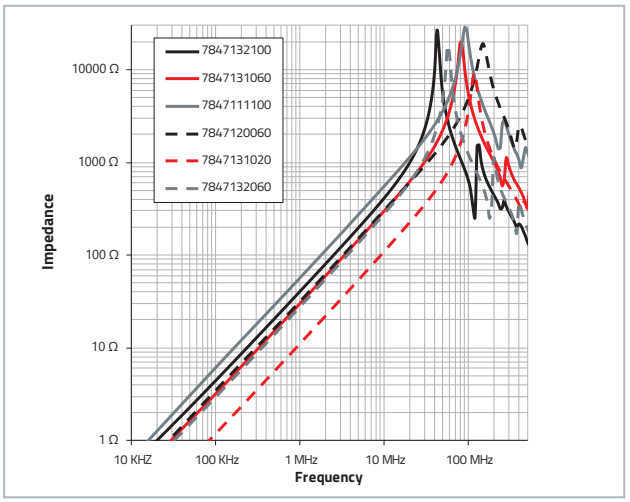


Check the complete series:
www.we-online.com/we-rcit

Temperature Rise vs. Current



Impedance vs. Frequency



Test Conditions

I_R: ΔT = 40 K L: @20°C 100Khz / 0.5 V I_{SAT}: | ΔL / L | < 10%

WE-RCIS
ROD CORE INDUCTOR SMT

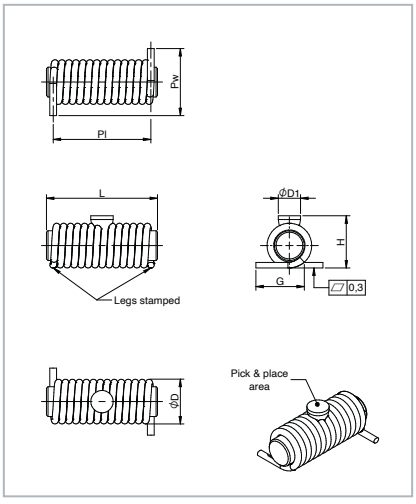
Characteristics
- High current capabilty
- Very high magnetic saturation
- High insertion loss at FM band
- Broadband suppression
- Robust mechanical design
- Packaging: Tape & reel / pick & place
- AEC-Q200

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

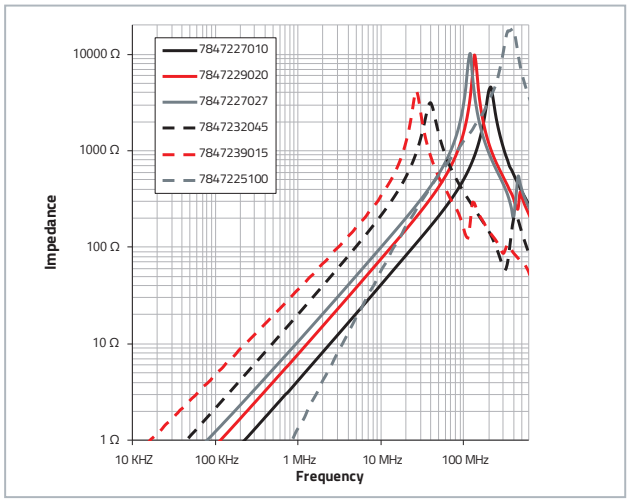
Order Code	I_R (A)	I_{SAT} (A)	R_{DC} (mΩ)	L (µH)	L (mm)	P_I (mm)	Ø D (mm)	Pw (mm)	G (mm)	Ø F (mm)
7847225100	3.25	7.4	33	10.4	18.2	14	4	6	4	0.35
7847227027	10	17.5	6.4	2.72	14.9	13.1	6.5	9	6.5	1
7847232045	12	45	3.8	4.45	25	18.6	11.5	13	6	1.5
7847229020	15	39	2.4	1.96	18	15.5	9.3	9	5.5	1.5
7847239015	17.5	18.5	1.1	1.41	22.6	21.6	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: Pad to Pad (Middle); Ø D: Diameter; Pw: Pad to Pad (Middle); G: Pin length; Ø F: Pin Diameter

Dimensions: [mm]



Impedance vs. Frequency

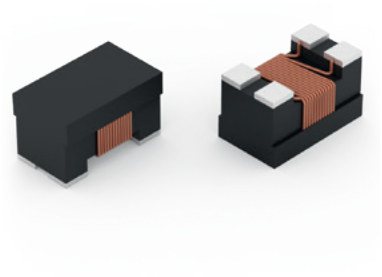


Test Conditions

I_R: ΔT = 40 K
L: @20°C 100Khz / 0.5 V
I_{SAT}: | ΔL / L | < 10%

Check the complete series:
www.we-online.com/we-rcis

WE-CNSA
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

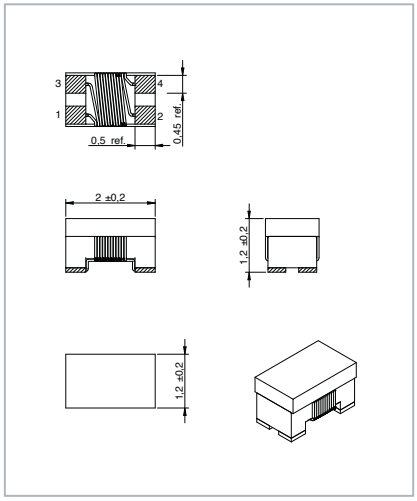
Automotive released CMC

Size 0805

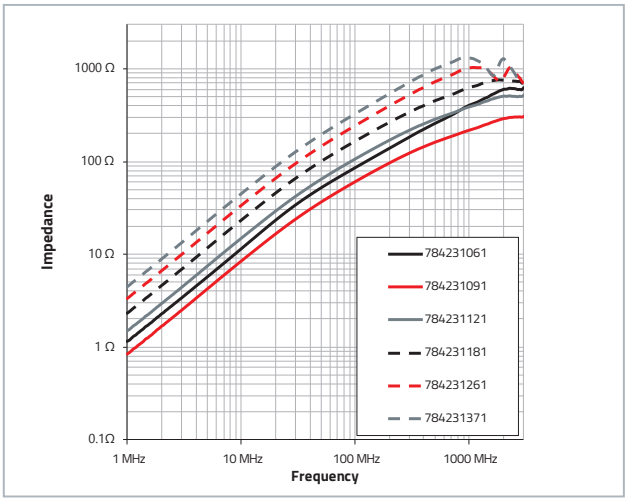
Order Code	Winding Style	L (µH)	Z @ 10 MHz (Ω)	Z @ 100 MHz (Ω)	R_{DC} (Ω)	I_R (mA)
784231061	bifiliar	0.088	10	67	0.151	400
784231091		0.131	12	90	0.195	370
784231121		0.166	18	120	0.196	370
784231181		0.252	28	180	0.236	330
784231261		0.367	36	260	0.273	300
784231371		0.478	54	370	0.3	280

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

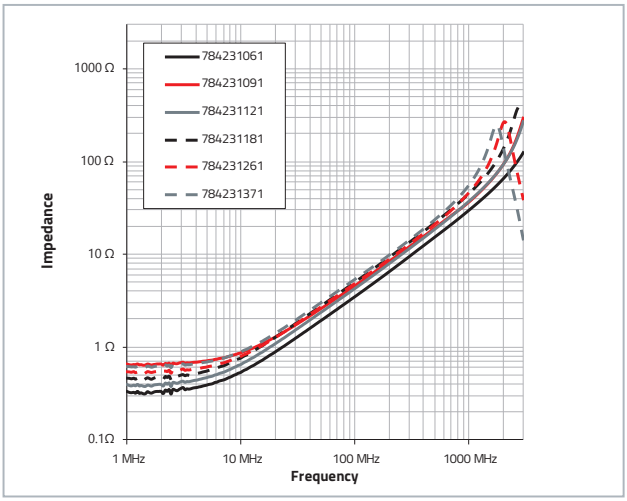
Dimensions: [mm]



Impedance vs. Frequency (Common Mode)

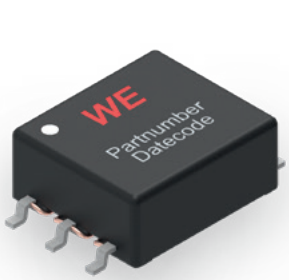


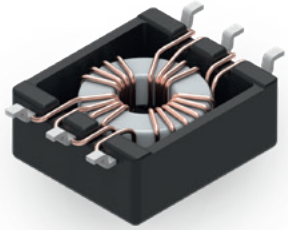
Impedance vs. Frequency (Differential Mode)

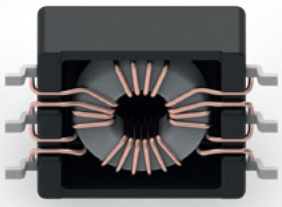


Check the complete series:
www.we-online.com/we-cnsa

WE-PSPA
PUSH PULL & GATE DRIVE TRANSFORMER



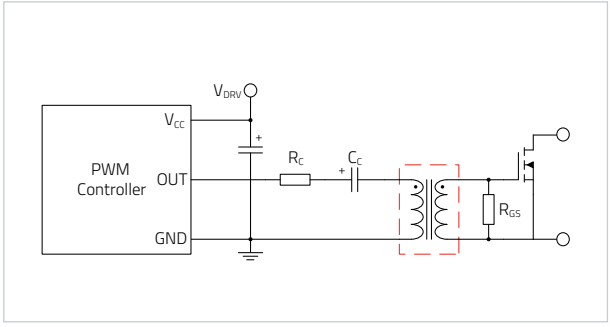




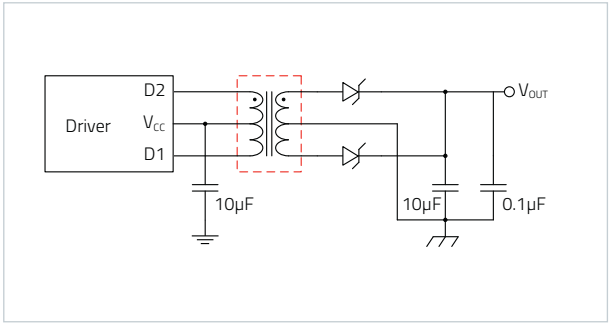
WE-PSPA is a small sized power transformer specially designed for Push-Pull and Gate Drive applications.

- 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

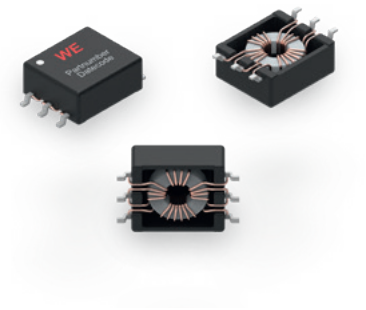


Simplified Push Pull Application



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- t (unit: volt-second) is calculated of the inductance L and the saturation current Isat. When selecting a transformer, you should ensure, that enough volt-seconds are available, depending on the frequency and pulse bandwidth of the application.

WE-PSPA
PUSH PULL & GATE DRIVE TRANSFORMER



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

Applications
- Can be used as interface in gate drive transformer for isolated power supplies
- Can be used as interface in CAN, I2C, Low Power LAN, RS485, RS422, RS232

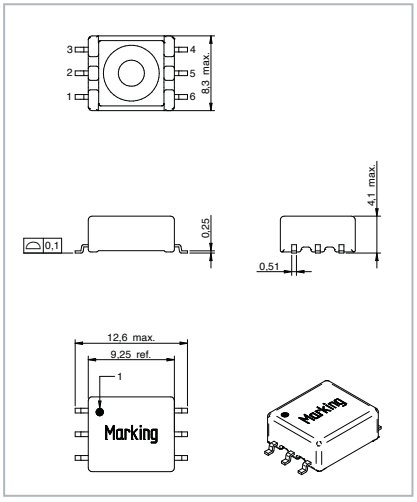
New!

Size 1208

Order Code	L (µH)	n (1-3):(6-4)	$R_{DC\,1}$ (mΩ)	$R_{DC\,2}$ (mΩ)	$R_{DC\,3}$ (mΩ)	$R_{DC\,4}$ (mΩ)	∫Udt (Vµs)	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; $R_{DC\,1}$: DC Resistance 1; $R_{DC\,2}$: DC Resistance 2; $R_{DC\,3}$: DC Resistance 3; $R_{DC\,4}$: DC Resistance 4; ∫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]

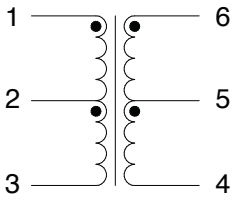


Pin Assignment:

RDC 1: $R_{DC\,(1-2)}$
RDC2: $R_{DC(2-3)}$
RDC3: $R_{DC(6-5)}$
RDC4: $R_{DC(5-4)}$

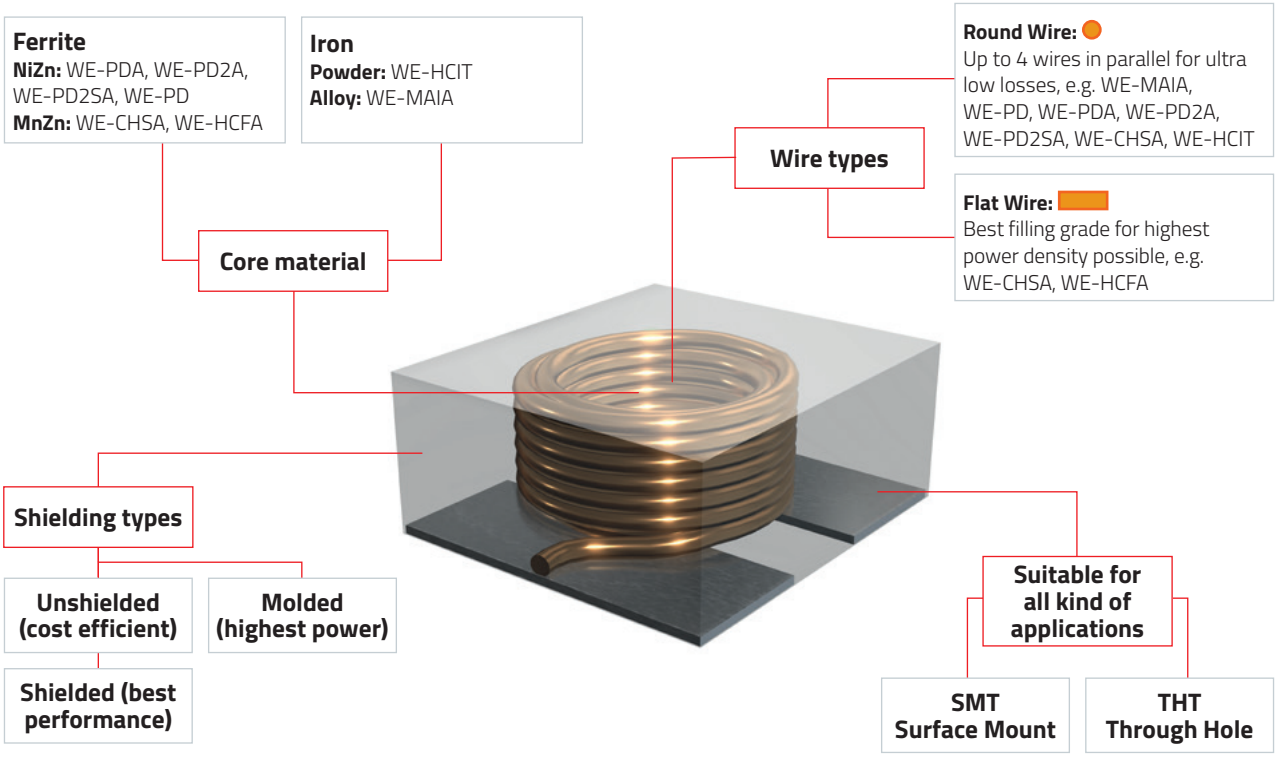
Insulation Test Voltage V_T is measured between pin 1 and 6.

Schematic:



Check the complete series:
www.we-online.com/we-pspa

SINGLE COIL INDUCTORS

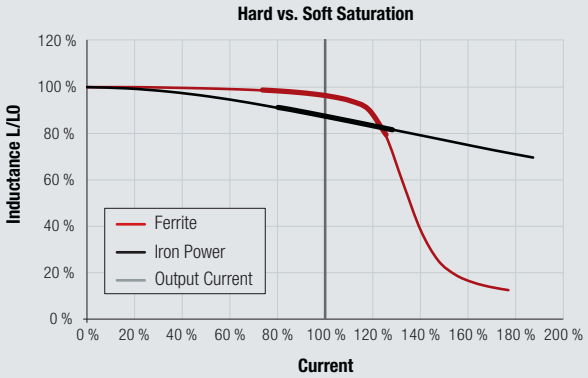


- AEC-Q200 qualified
- Temperature range: -40 °C up to +125 °C / +150 °C
- Outstanding saturation behavior
- Extreme low RDC

- 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

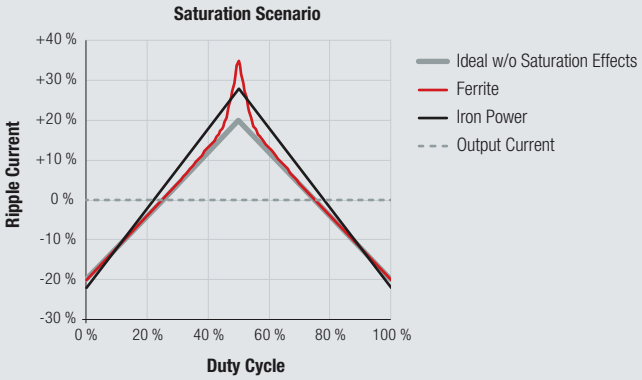
- Current rating up to >47 A
- Inductance value from 0.33 µH up to 1000 µH
- Switching frequency from 10 kHz up to 10 MHz

Inductor in a DC/DC Converter



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

Ripple Current over Inductor



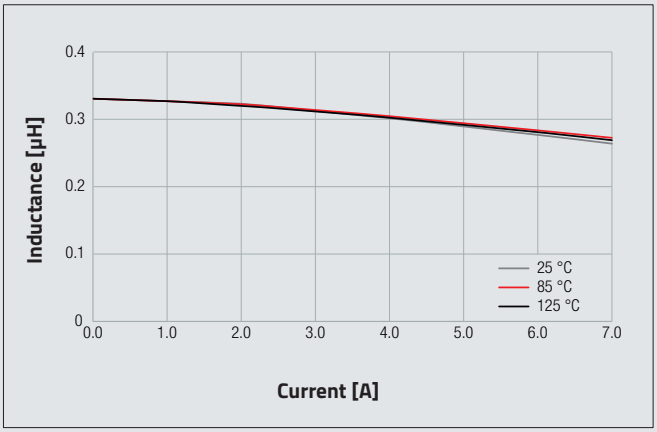
- In this example the duty cycle is 50 %
- Soft saturation leads to overall higher ripple
- Hard saturation may lead to ripple peaks when inductor is close to saturation

LOWEST AC & DC LOSSES IN CLASS WE-MAIA

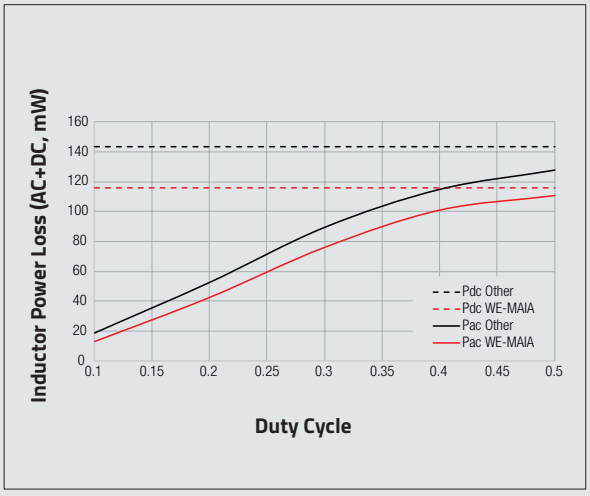
The WE-MAIA is designed to meet with the requirements of the latest and of the upcoming ICs. The innovative leadframe pad design with direct wire connection increases significantly the core utilization and therewith the current handling.

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

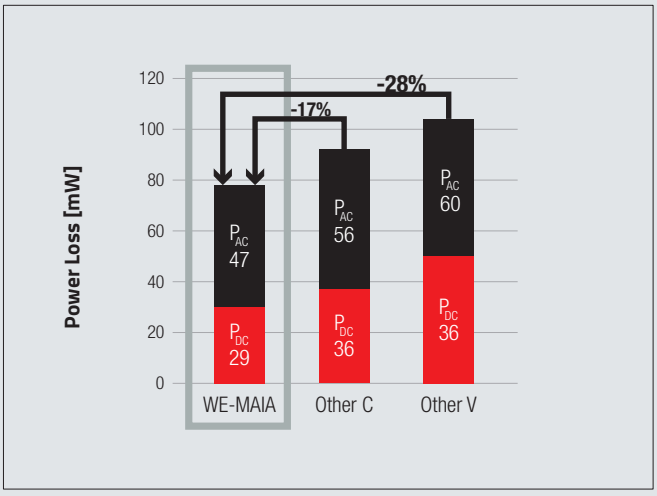
Excellent Temperature Stability



AC & DC Loss @ 500 kHz



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



WE-MAIA
SMT POWER INDUCTOR

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

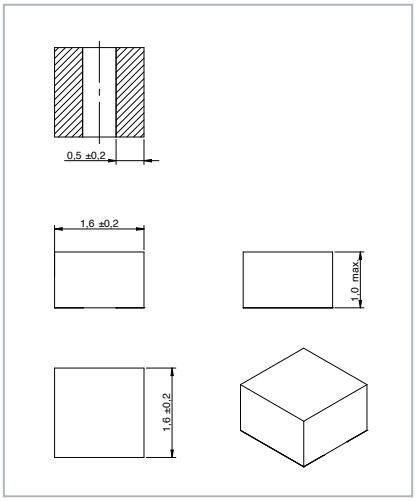
Applications
- Powertrain converters
- Body electronics & lighting
- Infotainment systems
- DC/DC-converter 48 V/12 V
- POL-converter
- DC/DC converter for field programmable gate array
- BMS (battery management system)

Size 1610

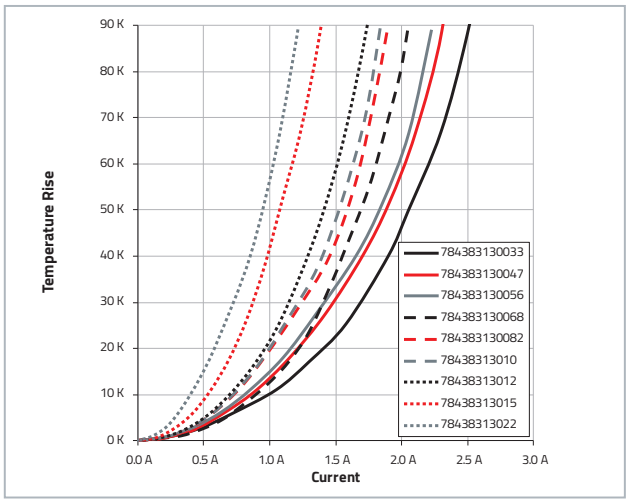
Order Code	L (µH)	Tol. L	I_R (A)	I_{SAT} (A)	R_{DC} (mΩ)	$R_{DC\ max.}$ (mΩ)
784383130033	0.33	±30%	1.9	4.9	65	84
784383130047	0.47		1.7	4.5	77	101
784383130056	0.56		1.65	4	90	113
784383130068	0.68		1.55	3.8	101	126
784383130082	0.82		1.45	3.6	115	144
78438313010	1		1.4	3.4	127	159
78438313012	1.2		1.3	3.2	140	174
78438313015	1.5		0.95	2.7	189	237
78438313022	2.2		0.85	2.5	337	388

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

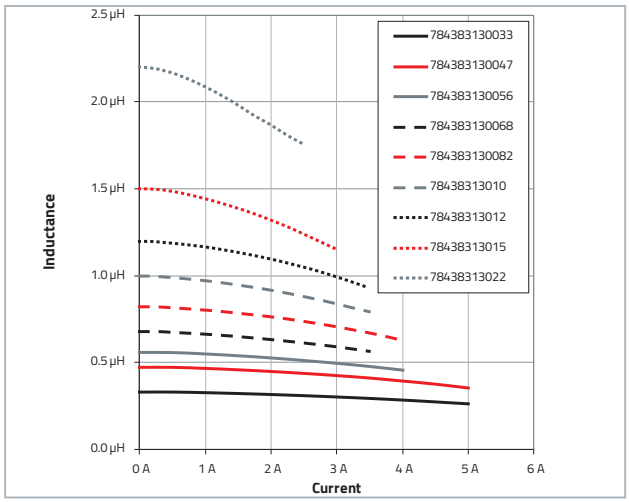
Dimensions: [mm]



Temperature Rise vs. Current



Inductance vs. Current



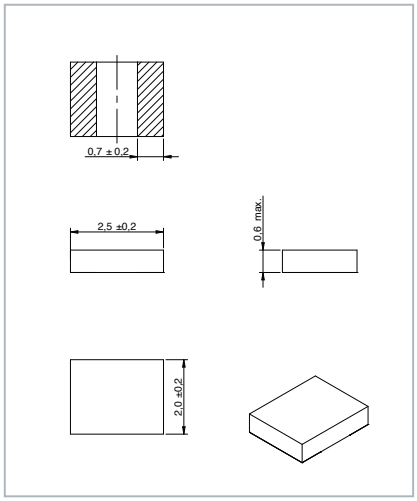
Check the complete series:
www.we-online.com/we-maia

Size 2506

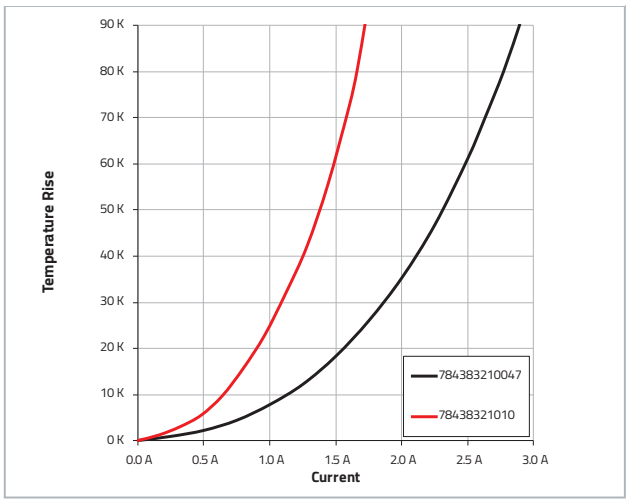
Order Code	L (µH)	Tol. L	I_R (A)	I_{SAT} (A)	R_{DC} (mΩ)	$R_{DC\ max.}$ (mΩ)
784383210047	0.47	±30%	2.2	3.7	76	95
78438321010	1		1.25	2.5	163	196

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

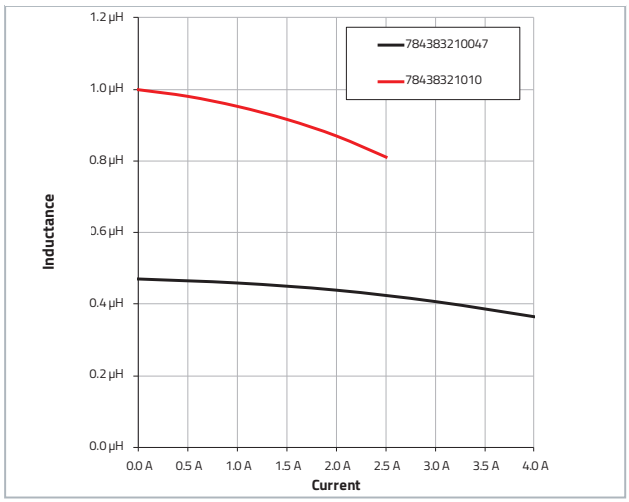
Dimensions: [mm]



Temperature Rise vs. Current



Inductance vs. Current



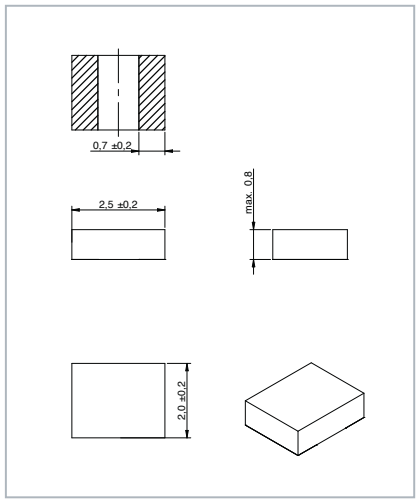
WE-MAIA
SMT POWER INDUCTOR

Size 2508

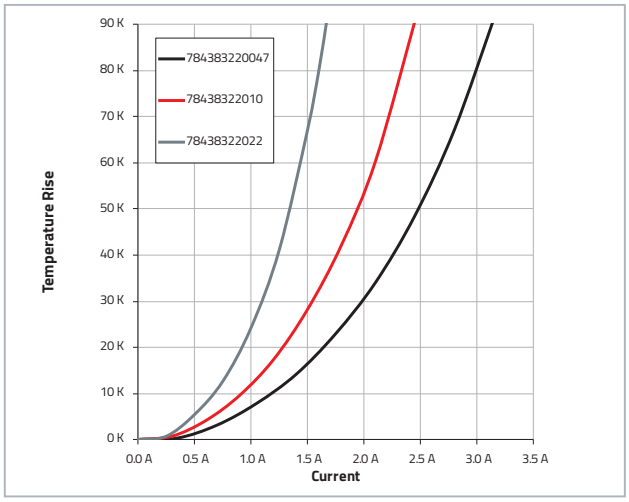
Order Code	L (µH)	Tol. L	I_R (A)	I_{SAT} (A)	R_{DC} (mΩ)	$R_{DC\ max.}$ (mΩ)
784383220047	0.47	±30%	2.25	4.4	70	87
78438322010	1		1.75	3.35	107	133
78438322022	2.2		1.34	2.2	252	302

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

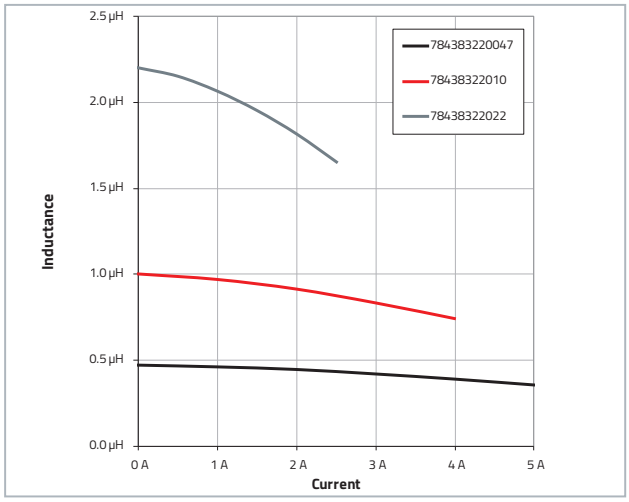
Dimensions: [mm]



Temperature Rise vs. Current



Inductance vs. Current

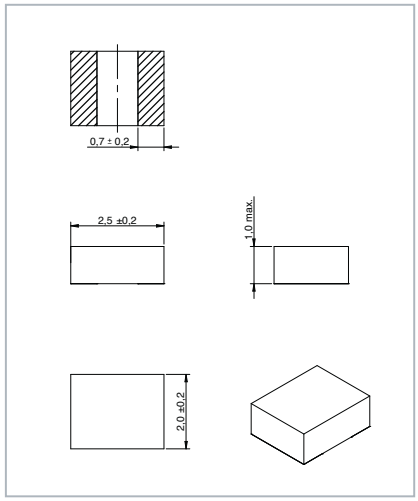


Size 2510

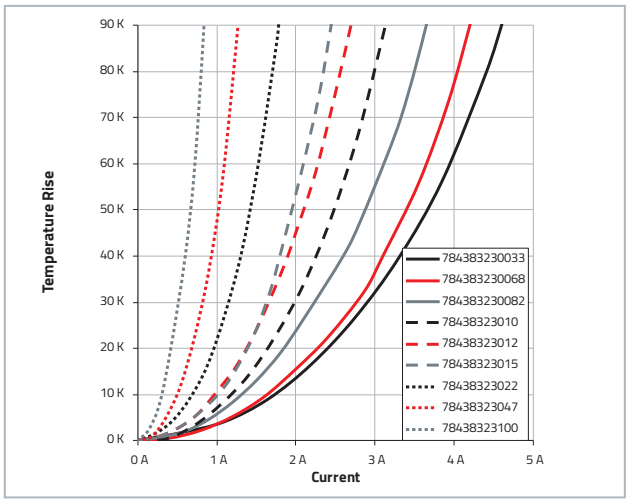
Order Code	L (µH)	Tol. L	I_R (A)	I_{SAT} (A)	R_{DC} (mΩ)	$R_{DC\ max.}$ (mΩ)
784383230033	0.33	±30%	3.4	6.2	29	38
784383230047	0.47	±30%	3.2	5.5	37	48
784383230068	0.68	±30%	3.1	4.7	46	60
784383230082	0.82	±30%	2.6	4.25	53	69
78438323010	1	±20%	2.5	4	63	75
78438323012	1.2	±20%	1.9	3.8	82	106
78438323015	1.5	±20%	1.8	3.5	92	110
78438323022	2.2	±20%	1.3	2.5	147	176
78438323033	3.3	±20%	1.25	2.1	220	264
78438323047	4.7	±20%	0.94	1.75	338	388
78438323068	6.8	±20%	0.85	1.55	563	648
78438323082	8.2	±20%	0.7	1.45	646	743
78438323100	10	±20%	0.6	1.35	733	843

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

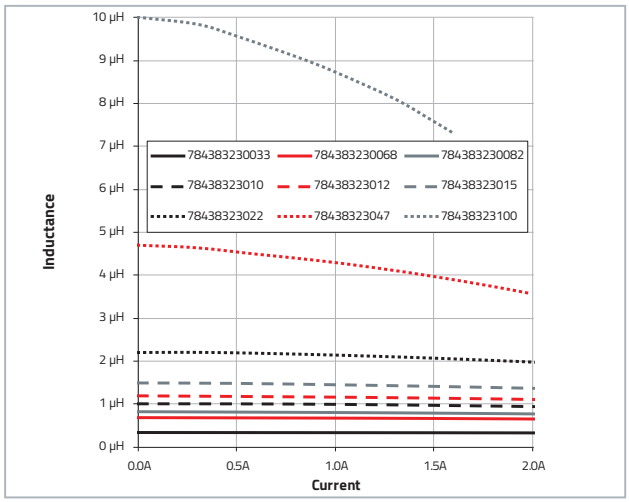
Dimensions: [mm]



Temperature Rise vs. Current



Inductance vs. Current



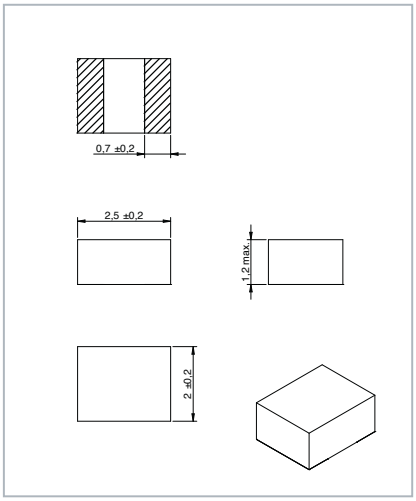
WE-MAIA
SMT POWER INDUCTOR

Size 2512

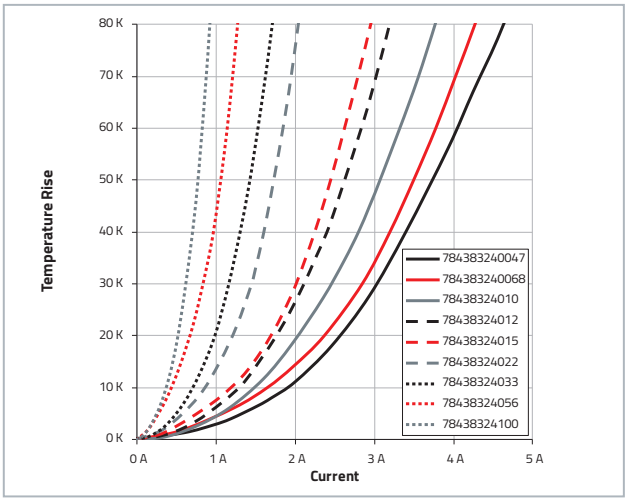
Order Code	L (µH)	Tol. L	I_R (A)	I_{SAT} (A)	R_{DC} (mΩ)	$R_{DC\ max.}$ (mΩ)
784383240047	0.47	±30%	3.4	6.25	30	40
784383240056	0.56	±30%	3.3	6	37	49
784383240068	0.68	±30%	3.2	5.85	45	59
78438324010	1	±20%	2.8	4.9	49	60
78438324012	1.2	±20%	2.4	4.5	67	80
78438324015	1.5	±20%	2.2	3.7	82	99
78438324022	2.2	±20%	1.6	2.9	123	141
78438324033	3.3	±20%	1.3	2.6	226	260
78438324047	4.7	±20%	1	2.1	300	345
78438324056	5.6	±20%	0.95	1.75	405	465
78438324068	6.8	±20%	0.9	1.6	560	640
78438324082	8.2	±20%	0.8	1.5	630	720
78438324100	10	±20%	0.7	1.4	680	780

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

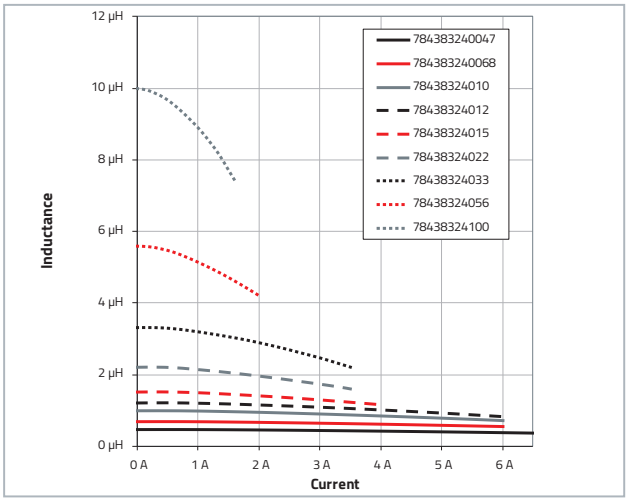
Dimensions: [mm]



Temperature Rise vs. Current



Inductance vs. Current

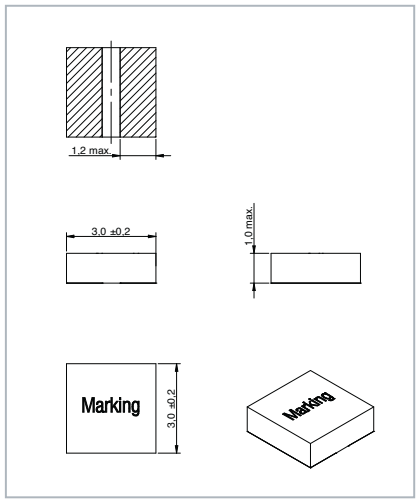


Size 3010

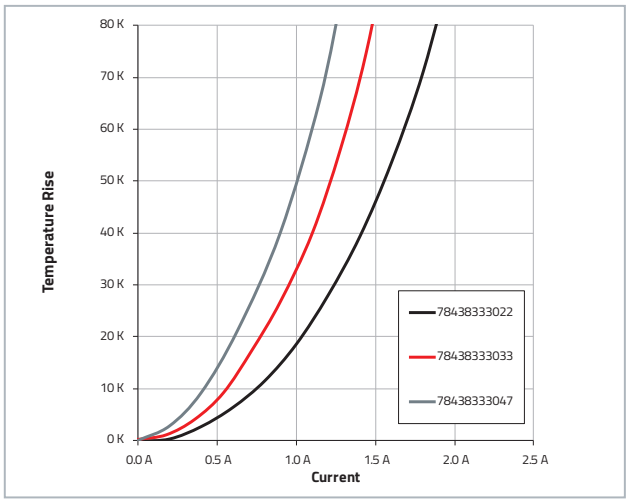
Order Code	L (µH)	Tol. L	I_R (A)	I_{SAT} (A)	R_{DC} (mΩ)	$R_{DC\ max.}$ (mΩ)
78438333022	2.2	±20%	1.4	3.9	150	172
78438333033	3.3		1.1	2.95	232	266
78438333047	4.7		0.9	2.4	356	409

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

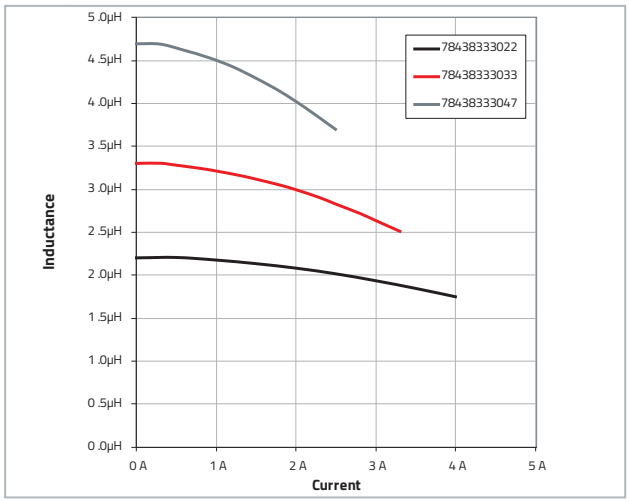
Dimensions: [mm]



Temperature Rise vs. Current



Inductance vs. Current



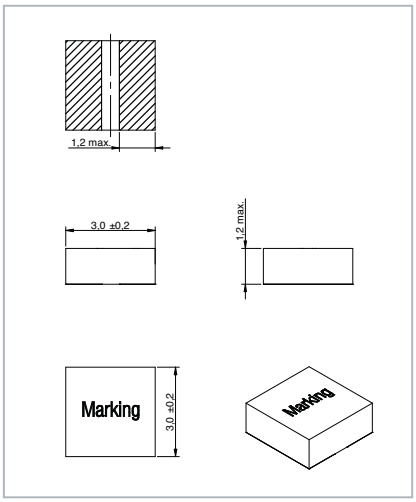
WE-MAIA
SMT POWER INDUCTOR

Size 3012

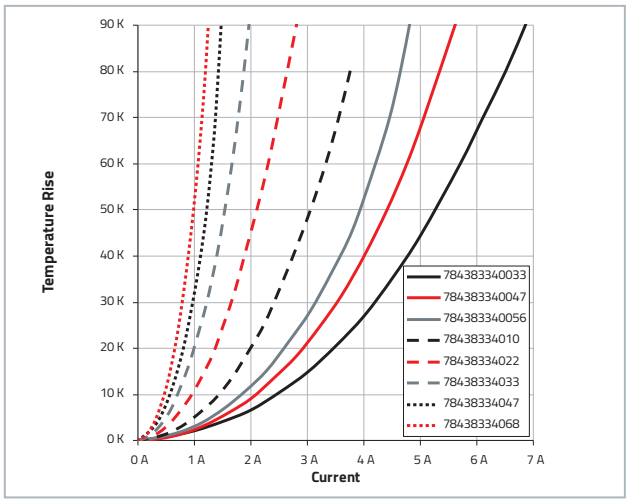
Order Code	L (µH)	Tol. L	I_R (A)	I_{SAT} (A)	R_{DC} (mΩ)	$R_{DC\ max.}$ (mΩ)
784383340033	0.33	±30%	4.8	11.1	19	22.8
784383340047	0.47	±30%	4	9.4	22	26.4
784383340056	0.56	±30%	3.6	8.5	29	34.8
784383340068	0.68	±30%	3.5	7.7	36	43.2
78438334010	1	±20%	2.75	6.6	42.1	50.5
78438334012	1.2	±20%	2.65	6	55	66
78438334015	1.5	±20%	2	5.7	80	96
78438334022	2.2	±20%	1.8	5	100	115
78438334033	3.3	±20%	1.4	4	156.3	179.7
78438334047	4.7	±20%	1.1	3.8	267.7	307.8
78438334056	5.6	±20%	1	3	338.3	389
78438334068	6.8	±20%	0.88	2.7	368.2	423.4

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

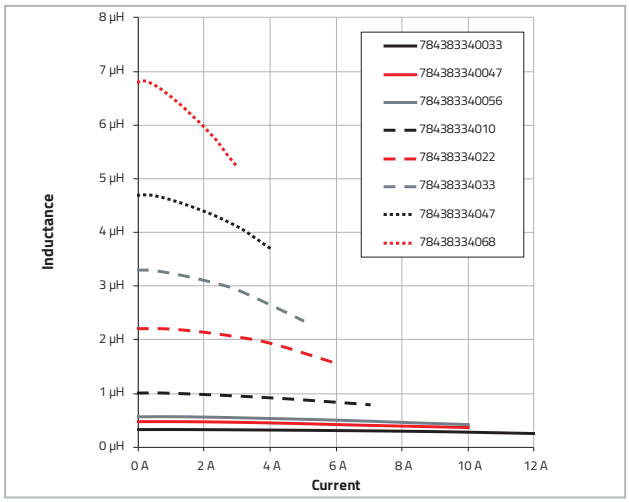
Dimensions: [mm]



Temperature Rise vs. Current



Inductance vs. Current

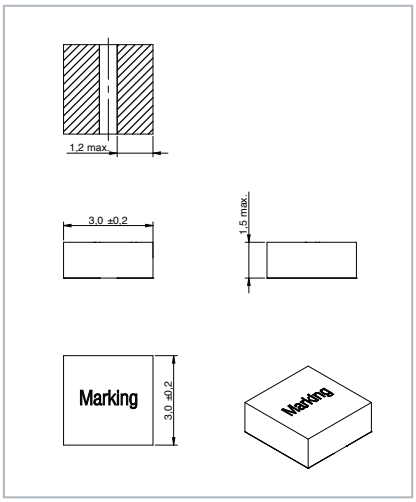


Size 3015

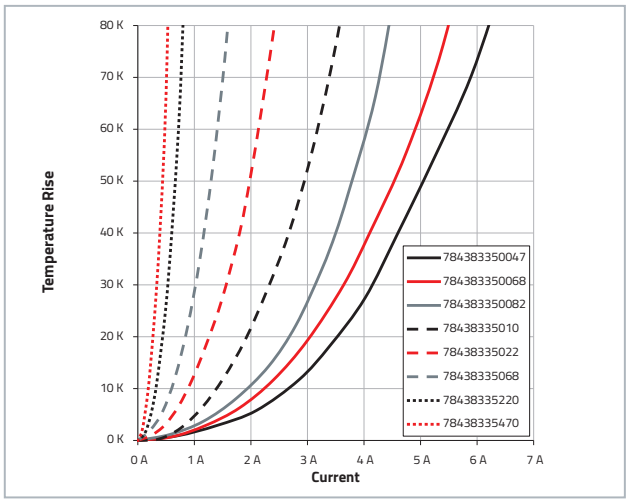
Order Code	L (µH)	Tol. L	I_R (A)	I_{SAT} (A)	R_{DC} (mΩ)	$R_{DC\ max.}$ (mΩ)
784383350047	0.47	±30%	4.6	5.8	20	23
784383350068	0.68	±30%	4.1	8.1	25	30
784383350082	0.82	±30%	3.5	7	30	35
78438335010	1	±20%	2.7	4.5	39	47
78438335022	2.2	±20%	1.8	3.5	94	108
78438335033	3.3	±20%	1.7	3.2	114	131
78438335047	4.7	±20%	1.5	2.8	141	162
78438335068	6.8	±20%	1.1	2.4	250	287
78438335100	10	±20%	0.85	2	446	513
78438335150	15	±20%	0.65	1.71	720	830
78438335220	22	±20%	0.6	1.6	940	1040
78438335330	33	±20%	0.5	1.3	1210	1330
78438335470	47	±20%	0.39	1.18	2090	2300

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

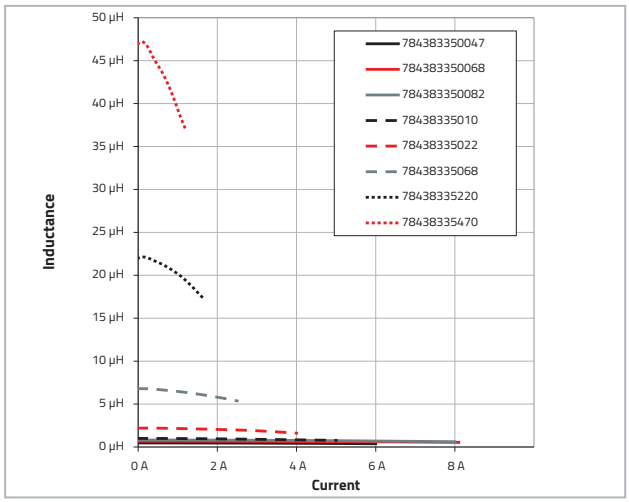
Dimensions: [mm]



Temperature Rise vs. Current



Inductance vs. Current



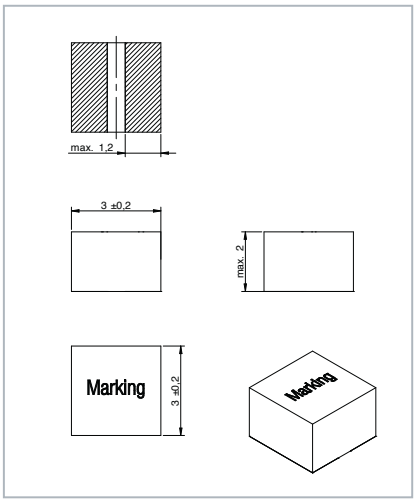
WE-MAIA
SMT POWER INDUCTOR

Size 3020

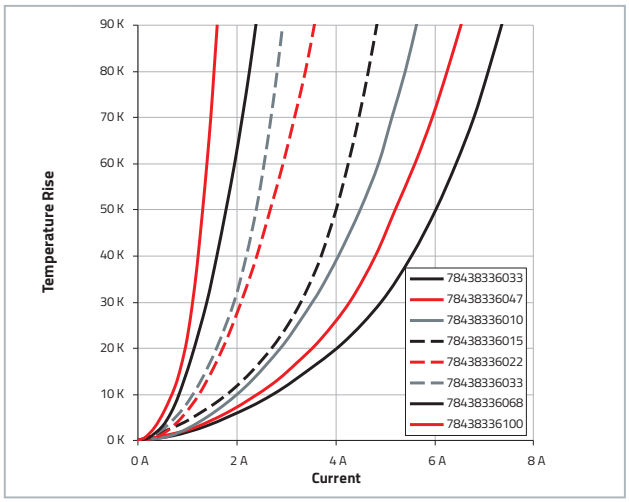
Order Code	L (µH)	Tol. L	I_R (A)	I_{SAT} (A)	R_{DC} (mΩ)	$R_{DC\ max.}$ (mΩ)
784383360033	0.33	±30%	5.5	8.3	14	17
784383360047	0.47	±30%	4.8	8	18	22
784383360068	0.68	±30%	4.5	6.2	22	27
78438336010	1	±20%	4	5	26	32
78438336012	1.2	±20%	3.9	4.75	30	36
78438336015	1.5	±20%	3.7	4.5	33	39
78438336022	2.2	±20%	2.4	4.3	67	80
78438336033	3.3	±20%	2.2	4.25	99	114
78438336047	4.7	±20%	1.9	3.9	137	158
78438336068	6.8	±20%	1.6	2.85	168	193
78438336100	10	±20%	1.2	2.35	280	322

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

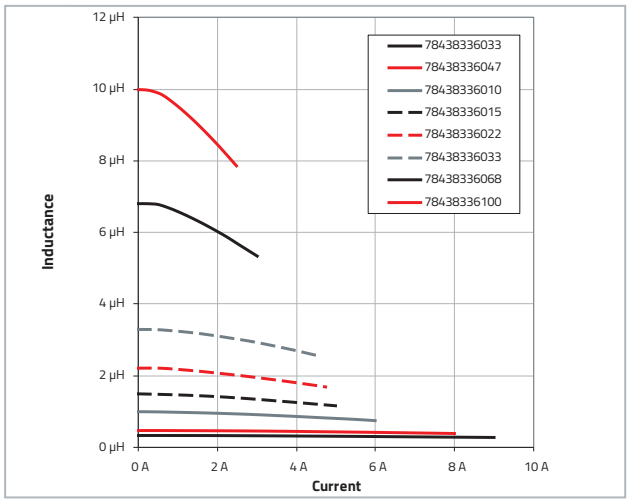
Dimensions: [mm]



Temperature Rise vs. Current



Inductance vs. Current

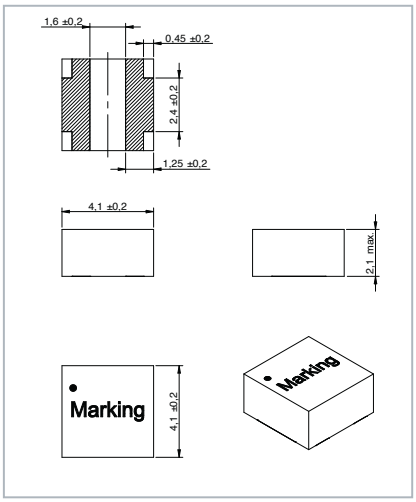


Size 4020

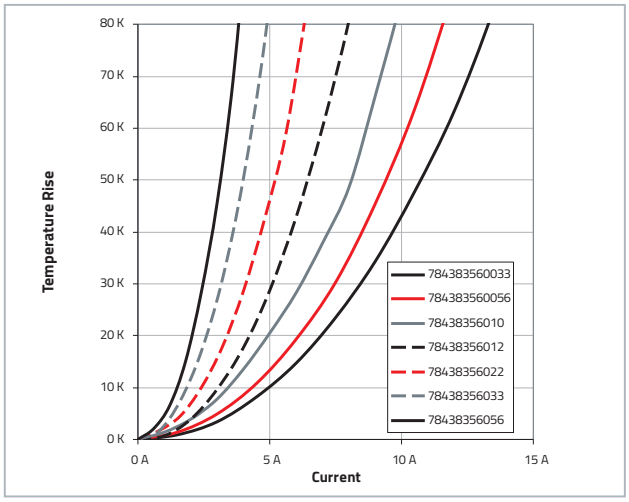
Order Code	L (µH)	Tol. L	I_R (A)	I_{SAT} (A)	R_{DC} (mΩ)	$R_{DC\ max.}$ (mΩ)
784383560033	0.33	±30%	9.6	12.4	6	7.2
784383560056	0.56	±30%	8.5	10.8	7	8.4
784383560068	0.68	±20%	8.2	9.4	7.5	9
78438356010	1	±20%	7.2	9	12	15
78438356012	1.2	±20%	5.8	9	15	18
78438356015	1.5	±20%	5.8	7.8	16	19
78438356018	1.8	±20%	4.6	6.5	24.5	30
78438356022	2.2	±20%	4.7	6.2	29	35
78438356033	3.3	±20%	3.6	5.5	39.9	48
78438356047	4.7	±20%	2.9	4.7	63	76
78438356056	5.6	±20%	2.8	4.6	68	81

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

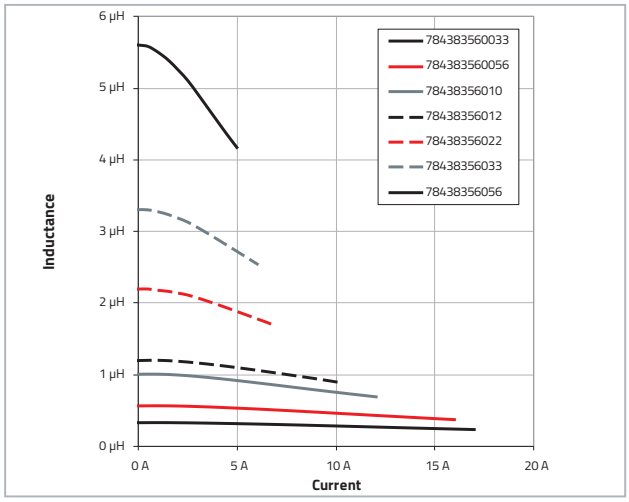
Dimensions: [mm]



Temperature Rise vs. Current



Inductance vs. Current



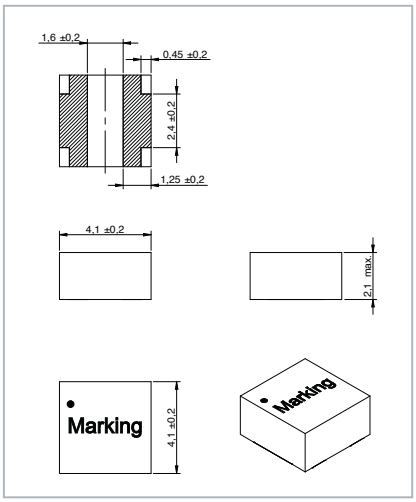
WE-MAIA
SMT POWER INDUCTOR

Size 4020 HT

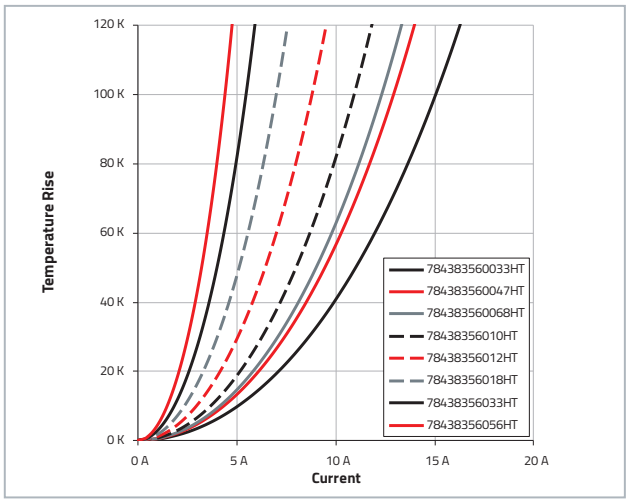
Order Code	L (µH)	Tol. L	I_R (A)	I_{SAT} (A)	R_{DC} (mΩ)	$R_{DC\ max.}$ (mΩ)
784383560033HT	0.33	±30%	9.9	11	7	7.5
784383560047HT	0.47	±30%	8.5	10	7	8.1
784383560056HT	0.56	±20%	8.2	9.55	7.5	8.6
784383560068HT	0.68	±20%	8.1	8.5	8	9.2
78438356010HT	1	±20%	7.2	6.5	13.5	15.5
78438356012HT	1.2	±20%	5.8	6.9	16	18.4
78438356015HT	1.5	±20%	5.5	6.6	18	20.7
78438356018HT	1.8	±20%	4.6	6.2	26	29.9
78438356022HT	2.2	±20%	4.5	5.6	28	32.2
78438356033HT	3.3	±20%	3.6	4.8	45	51.8
78438356047HT	4.7	±20%	3	3.7	65	74.8
78438356056HT	5.6	±20%	2.9	3.5	70	80.5

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

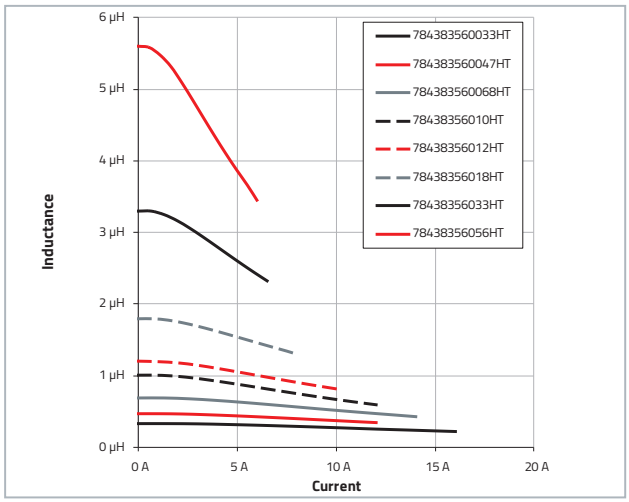
Dimensions: [mm]



Temperature Rise vs. Current



Inductance vs. Current

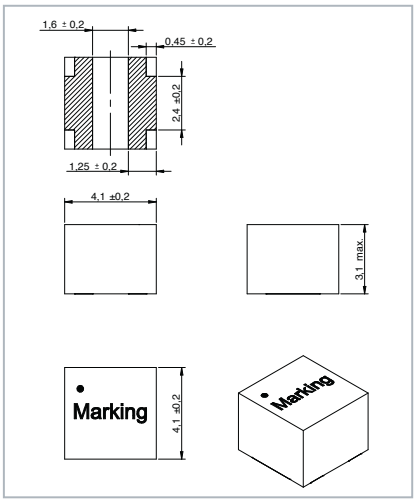


Size 4030

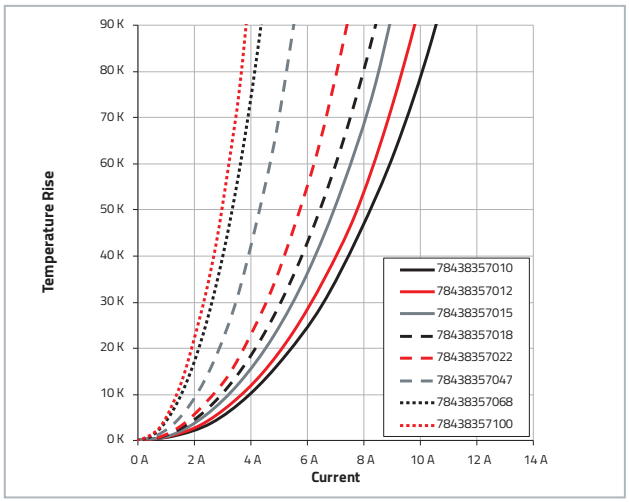
Order Code	L (µH)	Tol. L	I_R (A)	I_{SAT} (A)	R_{DC} (mΩ)	$R_{DC\ max.}$ (mΩ)
78438357010	1	±20%	7.4	9.6	11.6	13.5
78438357012	1.2		7	8.8	13.4	15.5
78438357015	1.5		6.2	8.5	17.1	20
78438357018	1.8		5.8	8	18	21
78438357022	2.2		5.2	7	22	26
78438357033	3.3		5	5	29	33.5
78438357047	4.7		3.9	6.4	39.9	44
78438357056	5.6		3.6	6	46.5	51
78438357068	6.8		3	5.5	69.4	74
78438357082	8.2		2.8	5.2	81	86
78438357100	10		2.7	4.6	100.8	110

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

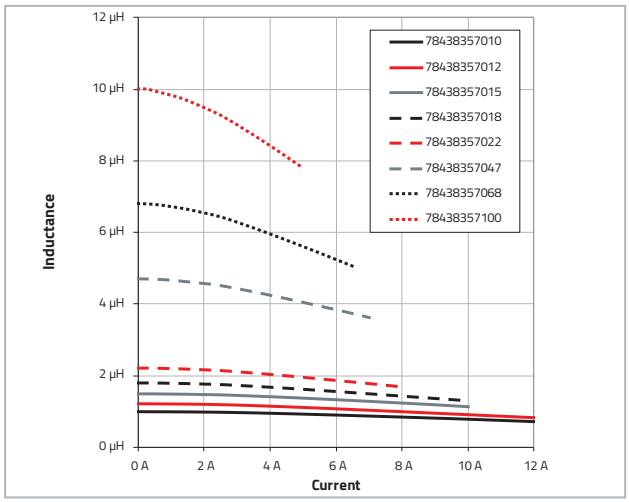
Dimensions: [mm]



Temperature Rise vs. Current



Inductance vs. Current



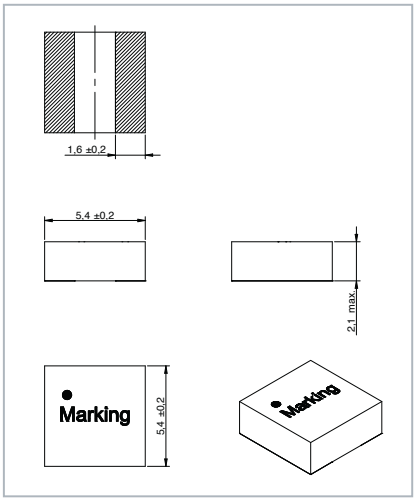
WE-MAIA
SMT POWER INDUCTOR

Size 5020

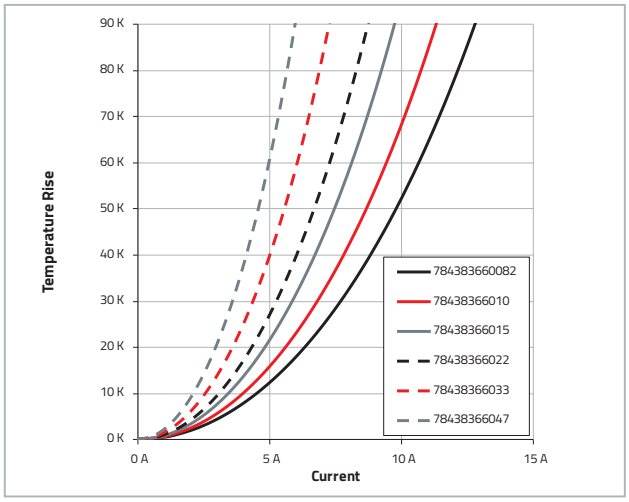
Order Code	L (µH)	Tol. L	I_R (A)	I_{SAT} (A)	R_{DC} (mΩ)	$R_{DC\ max.}$ (mΩ)
784383660082	0.82	±20%	8.8	11	8	9.6
78438366010	1		7.8	10	11.4	13.1
78438366015	1.5		6.7	9.5	18.5	21.3
78438366022	2.2		6	9	23.7	27.3
78438366033	3.3		5	7	33.4	38.4
78438366047	4.7		4.1	5.5	54.8	63

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

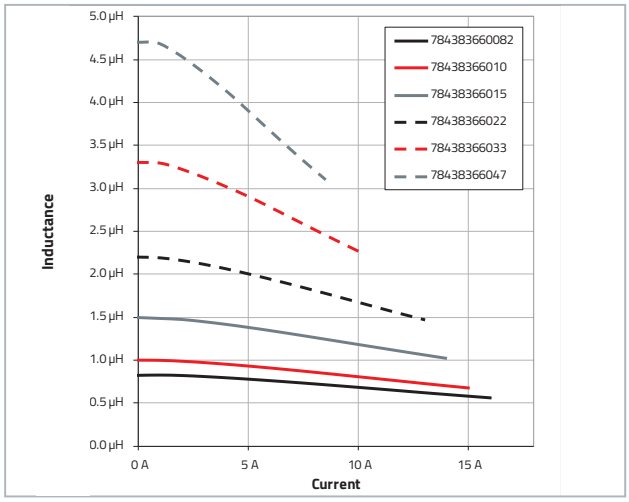
Dimensions: [mm]



Temperature Rise vs. Current



Inductance vs. Current

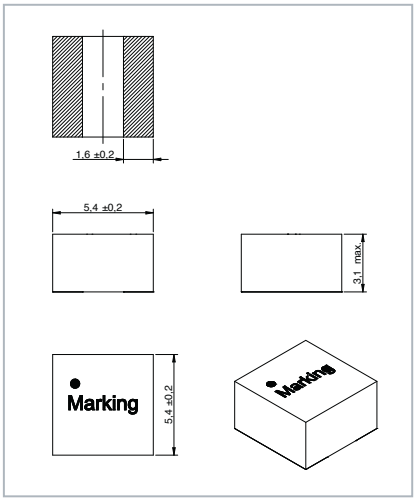


Size 5030

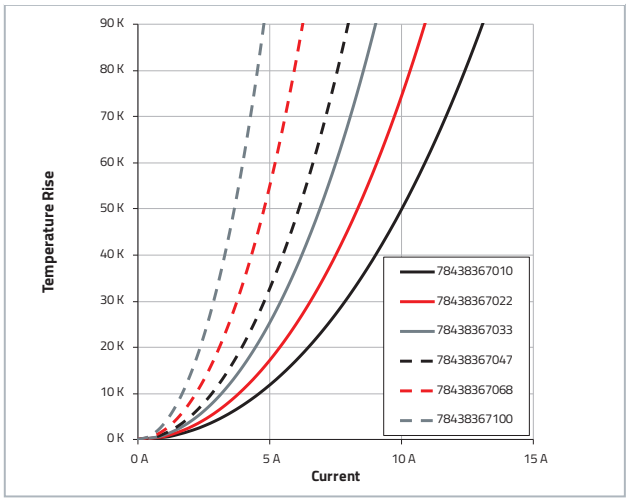
Order Code	L (µH)	Tol. L	I_R (A)	I_{SAT} (A)	R_{DC} (mΩ)	$R_{DC\ max.}$ (mΩ)
78438367010	1	±20%	9	9.6	10	11.5
78438367022	2.2		7.5	7.5	14	16.1
78438367033	3.3		6.2	7.3	20	23
78438367047	4.7		5.5	5.4	30	34.5
78438367068	6.8		4.3	5.7	42	48.3
78438367082	8.2		4.4	5	50	57.5
78438367100	10		3.3	4.8	61	70.2

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

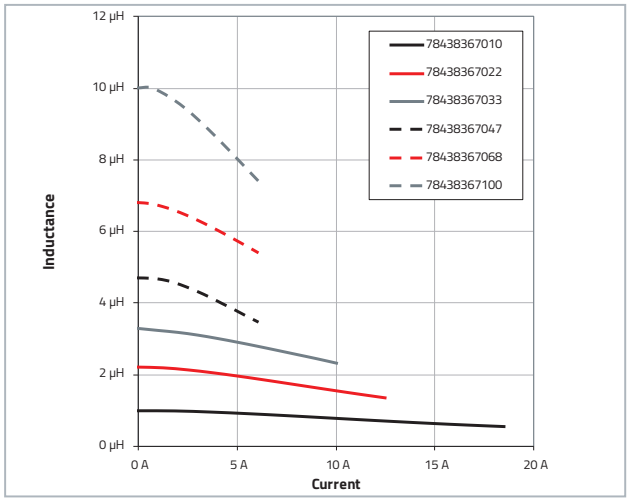
Dimensions: [mm]



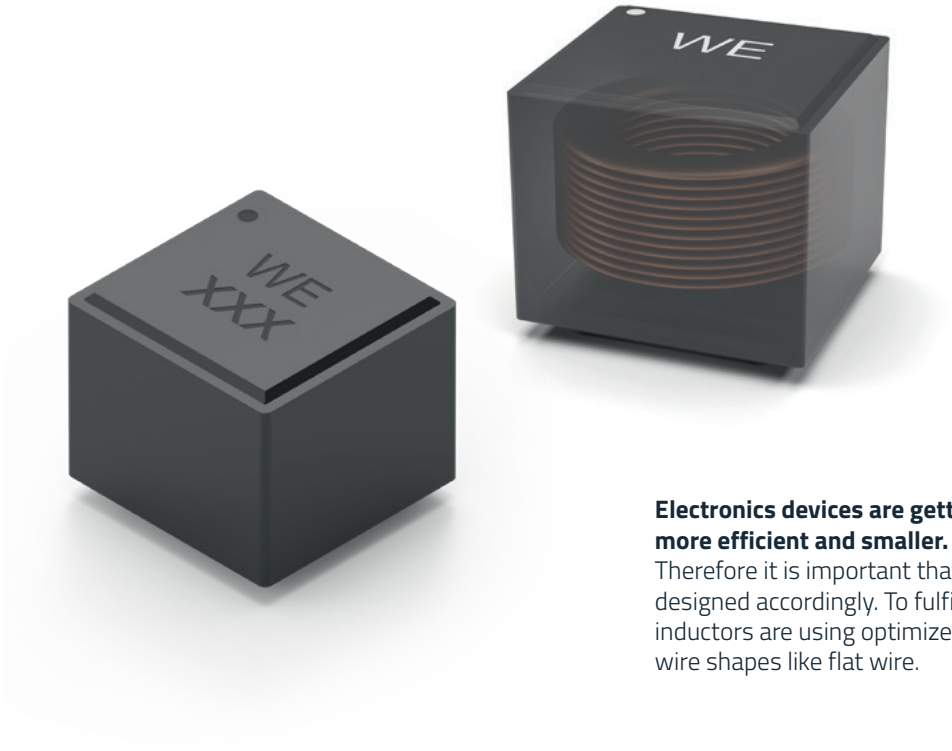
Temperature Rise vs. Current



Inductance vs. Current

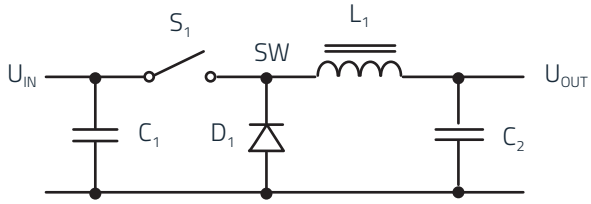


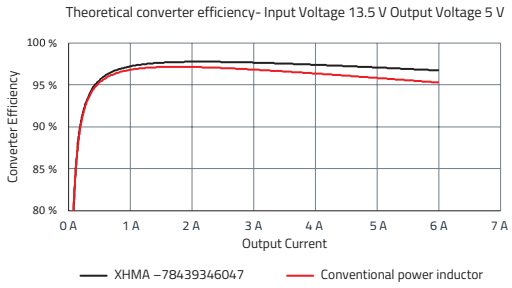
FLAT WIRE INDUCTOR
DESIGNED FOR EFFICIENCY!



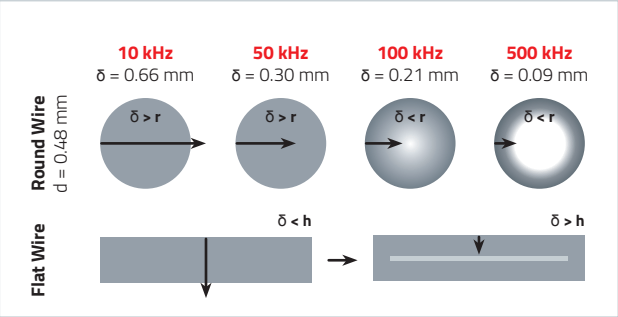
Electronics devices are getting more efficient and smaller.
Therefore it is important that electronic components are designed accordingly. To fulfil these requirements WE inductors are using optimized core materials and suitable wire shapes like flat wire.

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

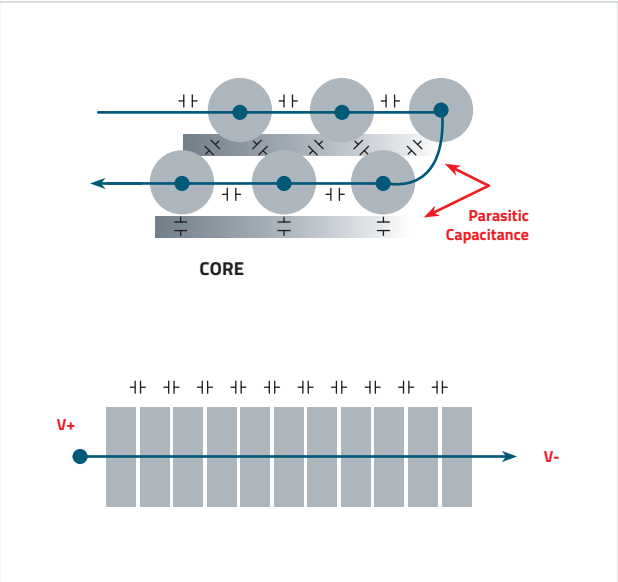




The AC skin effect reduces the effective cross section area the current can flow. A flat wire has much more surface area with the same cross-sectional area. With more surface area, the impact of the skin effect is reduced.



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-HCFA

- WE-HCFA is a high current flat wire inductor for automotive applications
- It is made of a MnZn PQ core, flat wire coil and a polymer base to ensure coplanarity with a third back pin to ensure mechanical stability

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

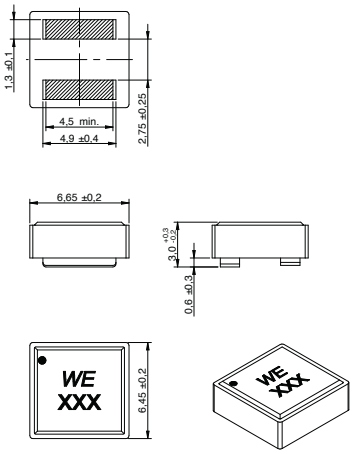
Extreme high current capabilities up to 50.6 A (saturation)

Size 6030

Order Code	L (µH)	Tol. L (%)	$I_{R,40K}$ (A)	I_{SAT2} (A)	R_{DC} (mΩ)	f_{res} (MHz)
784393440018	0.18	±20	20	50.6	1.32	169
784393440033	0.33		16.5	42.9	2.1	113
784393440056	0.56		16	30.8	2.9	77
78439344010	1		12	24.95	5.5	59
78439344012	1.2		10.3	21.6	6.4	53
78439344022	2.2		8	16.25	10.5	37
78439344033	3.3		6	14.5	19.2	31
78439344047	4.7		4.7	10.5	31	28

L: Inductance; Tol. L: Inductance (Tol.); $I_{R,40K}$: Rated Current; I_{SAT2}: Saturation Current 2; R_{DC}: DC Resistance; f_{res}: Self Resonant Frequency

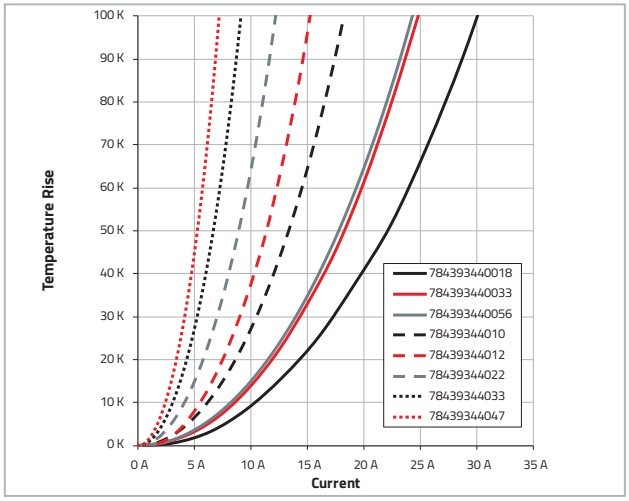
Dimensions: [mm]



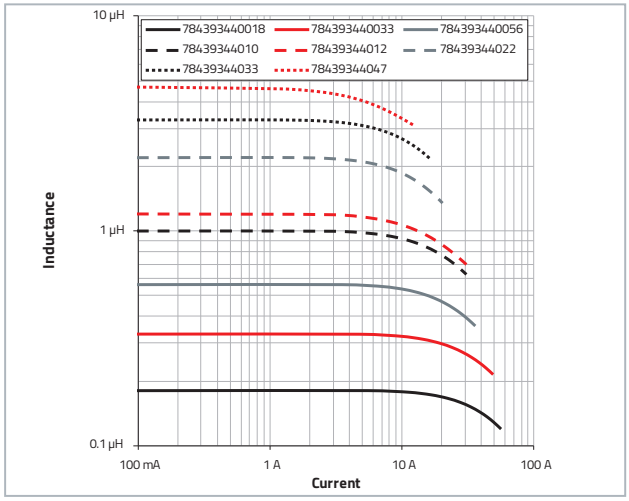
Test Conditions

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

Temperature Rise vs. Current



Inductance vs. Current



Check the complete series:
www.we-online.com/we-xhma

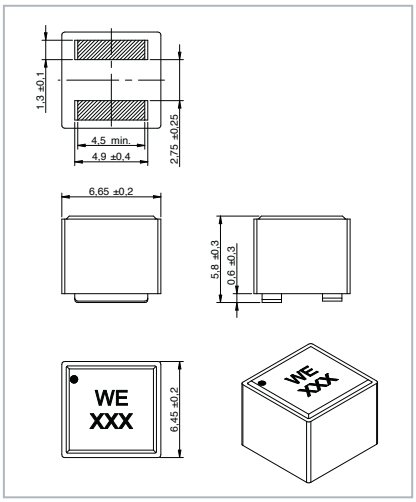
WE-XHMA
SMD POWER INDUCTOR

Size 6060

Order Code	L (µH)	Tol. L (%)	$I_{R,40K}$ (A)	I_{SAT2} (A)	R_{DC} (mΩ)	f_{res} (MHz)
78439346047	4.7	±20	7.4	13	13	28
78439346056	5.6		6.9	12.1	15	25
78439346068	6.8		6.5	11.3	17.6	22
78439346082	8.2		5.3	9.3	23	19
78439346100	10		5	9.7	26.5	18

L: Inductance; Tol. L: Inductance (Tol.); I_{R40K}: Rated Current; I_{SAT2}: Saturation Current 2; R_{DC}: DC Resistance; f_{res}: Self Resonant Frequency

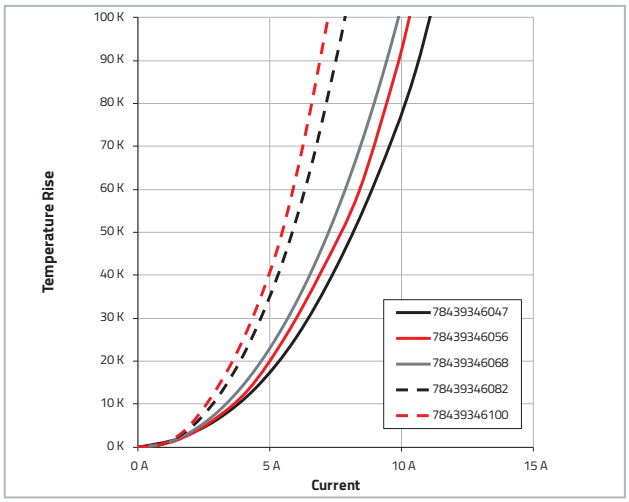
Dimensions: [mm]



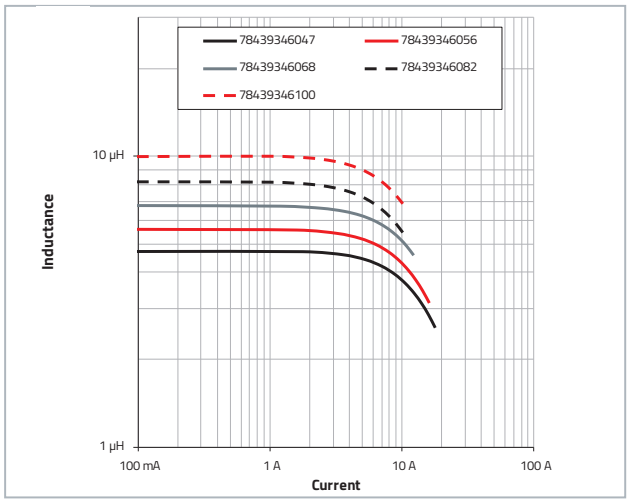
Test Conditions

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

Temperature Rise vs. Current



Inductance vs. Current

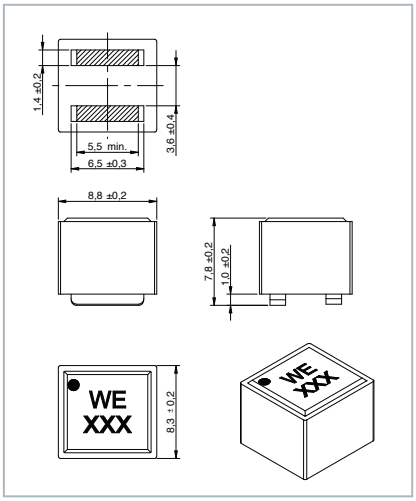


Size 8080

Order Code	L (µH)	Tol. L (%)	$I_{R,40K}$ (A)	I_{SAT2} (A)	R_{DC} (mΩ)	f_{res} (MHz)
78439358010	1	±20	17	38.15	2.1	53
78439358022	2.2		13	26.45	3.7	33
78439358047	4.7		9.5	16.65	8.65	22
78439358068	6.8		7.2	17.6	13	22
78439358100	10		5.8	13.5	19	17

L: Inductance; Tol. L: Inductance (Tol.); I_{R40K}: Rated Current; I_{SAT2}: Saturation Current 2; R_{DC}: DC Resistance; f_{res}: Self Resonant Frequency

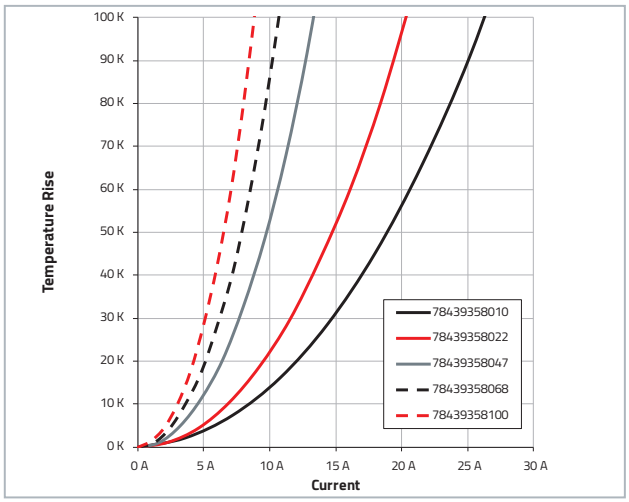
Dimensions: [mm]



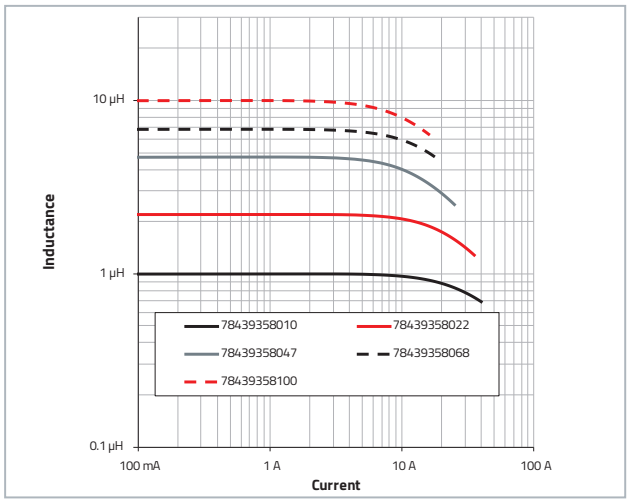
Test Conditions

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

Temperature Rise vs. Current



Inductance vs. Current



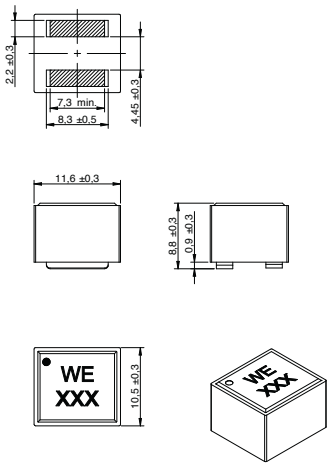
WE-XHMA
SMD POWER INDUCTOR

Size 1090

Order Code	L (µH)	Tol. L (%)	$I_{R,40K}$ (A)	I_{SAT2} (A)	R_{DC} (mΩ)	f_{res} (MHz)
78439369022	2.2	±20	16	32.1	2.2	28
78439369033	3.3		15	34	3.4	23
78439369047	4.7		13.5	28.05	5	21
78439369056	5.6		11.5	24.45	5.9	18
78439369068	6.8		10.5	23.25	7.16	16
78439369082	8.2		9.8	20.45	10	16
78439369100	10		9.4	20.3	11	14
78439369150	15		8.3	16.95	14.8	11

L: Inductance; Tol. L: Inductance (Tol.); $I_{R,40K}$: Rated Current; I_{SAT2}: Saturation Current 2; R_{DC}: DC Resistance; f_{res}: Self Resonant Frequency

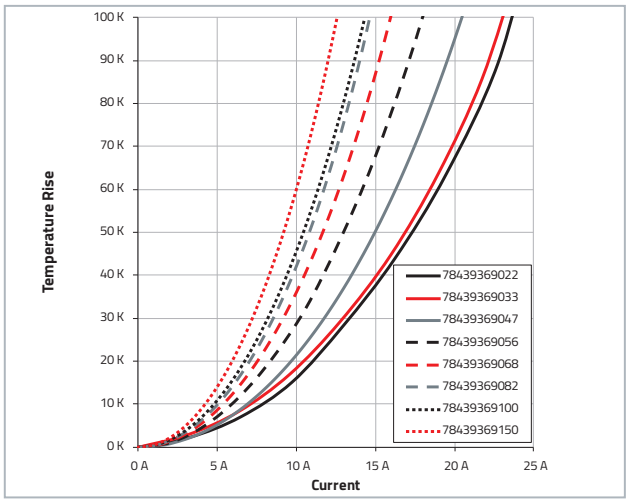
Dimensions: [mm]



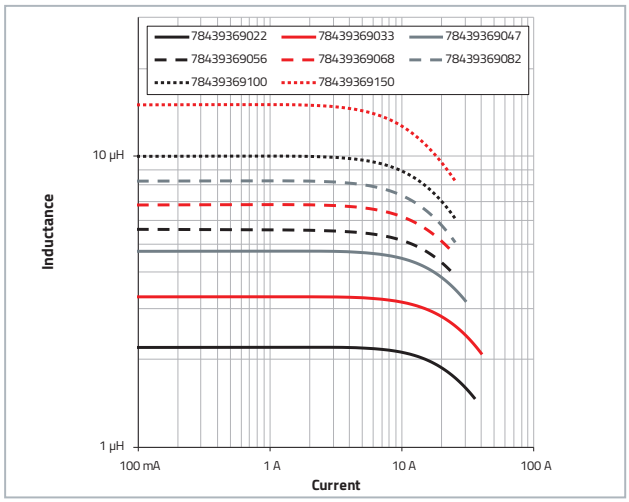
Test Conditions

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

Temperature Rise vs. Current



Inductance vs. Current

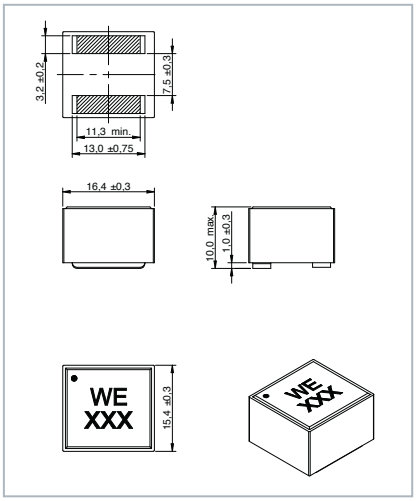


Size 1510

Order Code	L (µH)	Tol. L (%)	$I_{R,40K}$ (A)	I_{SAT2} (A)	R_{DC} (mΩ)	f_{res} (MHz)
78439370047	4.7	±20	17	47.4	3.1	16
78439370068	6.8		15	40.05	4.1	14
78439370082	8.2		13	36.4	5.5	11
78439370100	10		11.5	31.2	6.4	9
78439370150	15		10	26.1	10.5	8
78439370220	22		8	22.35	12.5	7
78439370330	33		8.5	18.15	18	5

L: Inductance; Tol. L: Inductance (Tol.); $I_{R,40K}$: Rated Current; I_{SAT2}: Saturation Current 2; R_{DC}: DC Resistance; f_{res}: Self Resonant Frequency

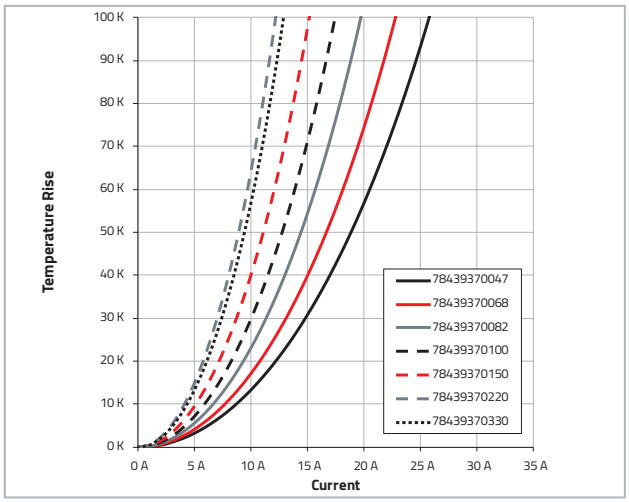
Dimensions: [mm]



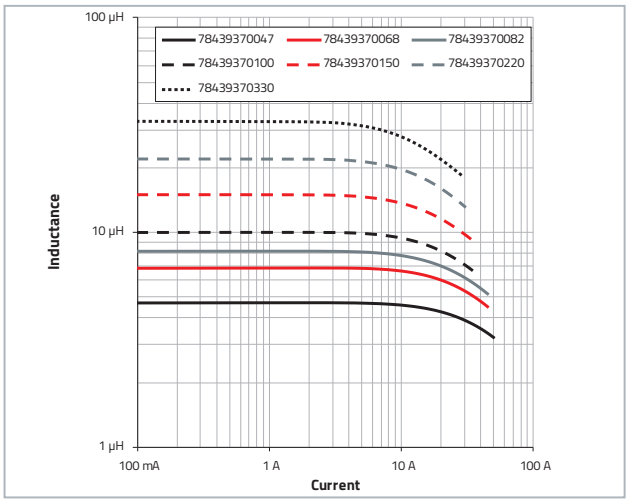
Test Conditions

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

Temperature Rise vs. Current



Inductance vs. Current



WE-PDA
SMT SHIELDED POWER INDUCTOR

Characteristics
- Magnetically shielded version which results in a low leakage field
- High Saturation currents up to 23 A
- Wire connection: welding technology
- Plastic base with better planarity
- High mechanical stability
- Core Material: NiZn
- Operating temperature: -50 °C up to +150 °C
- AEC-Q200

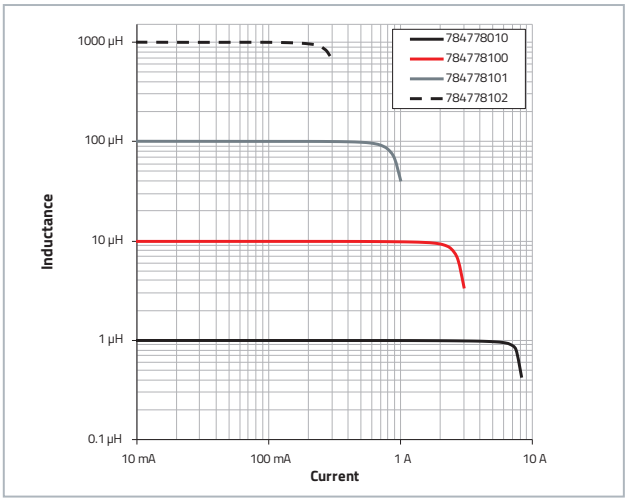
Applications
- Air conditioning, climate control units, ventilation, fan controls
- Small motor drivers & wiper control systems
- Car infotainment
- Switching regulators / DC/DC converter
- with extremely high efficiency (>95%)

Size 7332

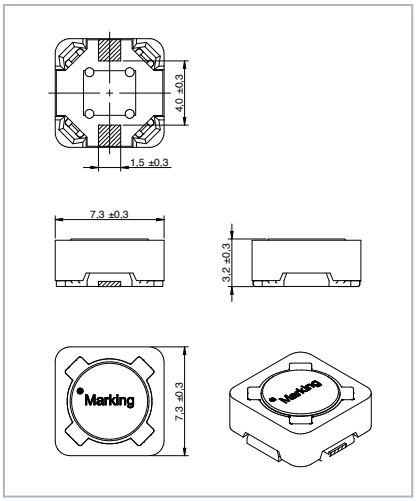
Order Code	L (µH)	Tol. L (%)	I_R (A)	I_{SAT} (A)	R_{DC} (mΩ)	$R_{DC\ max.}$ (mΩ)	f_{res} (MHz)
784778010	1	±20	3.5	7	30	36	183.7
784778022	2.2		3.1	5	42	50	110.5
784778033	3.3		2.65	3.7	54	65	71.3
784778047	4.7		2.4	3.1	66	79	52
784778068	6.8		2.3	2.5	79	94	40.7
784778082	8.2		2.2	2.4	86	103	36.9
784778100	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}: DC Resistance; $R_{DC\ max.}$: DC Resistance max.; f_{res}: Self Resonant Frequency

Inductance vs. Current



Dimensions: [mm]



Test Conditions

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

Check the complete series:
www.we-online.com/we-pda

Size 7345

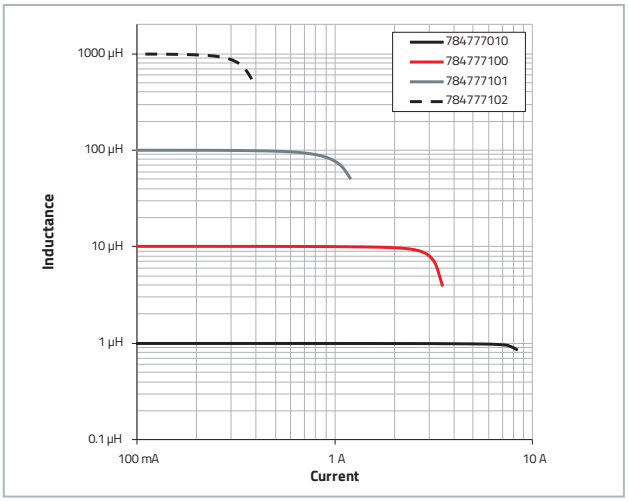
Order Code	L (µH)	a Tol. L (%)	I_R (A)	I_{SAT} (A)	R_{DC} (mΩ)	$R_{DC\ max.}$ (mΩ)	f_{res} (MHz)
784777010	1	±20	3.7	8	32	38.5	195
784777022	2.2		2.7	5.25	51	61	95.2
784777033	3.3		2.5	4.7	58	70	87.5
784777047	4.7		2.35	3.7	70	84	64.7
784777068	6.8		2.2	3.2	83	98	47.3
784777082	8.2		2	2.8	97.5	117	36.7
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}: DC Resistance; $R_{DC\ max.}$: DC Resistance max.; f_{res}: Self Resonant Frequency

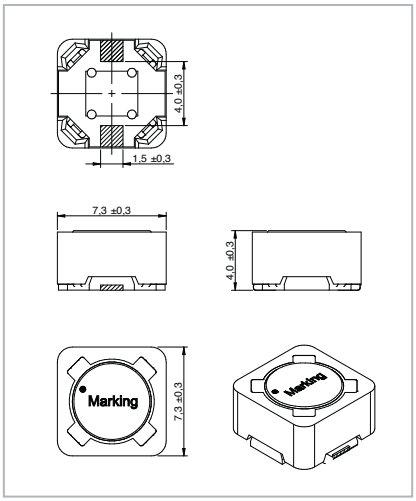
Test Conditions

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

Inductance vs. Current



Dimensions: [mm]



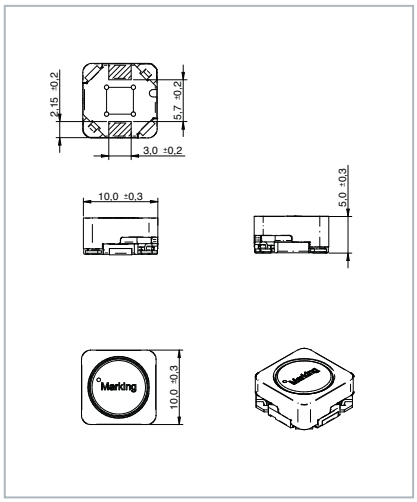
WE-PDA
SMT SHIELDED POWER INDUCTOR

Size 1050

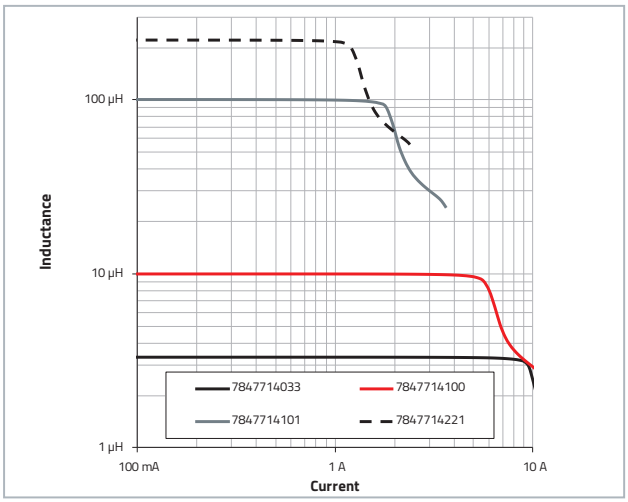
Order Code	L (µH)	Tol. L (%)	I_R (A)	I_{SAT} (A)	R_{DC} (mΩ)	$R_{DC\ max.}$ (mΩ)	f_{res} (MHz)
7847714033	3.3	±20	7.11	9.4	12	15	29
7847714047	4.7		6.81	8.2	14	17	25
7847714100	10		5.12	5.6	26	32	16.75
7847714220	22		3.13	3.7	63	75	9.6
7847714330	33		2.92	3	79	95	8.4
7847714470	47		2.26	2.45	123	148	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}: DC Resistance; $R_{DC\ max.}$: DC Resistance max.; f_{res}: Self Resonant Frequency

Dimensions: [mm]



Inductance vs. Current

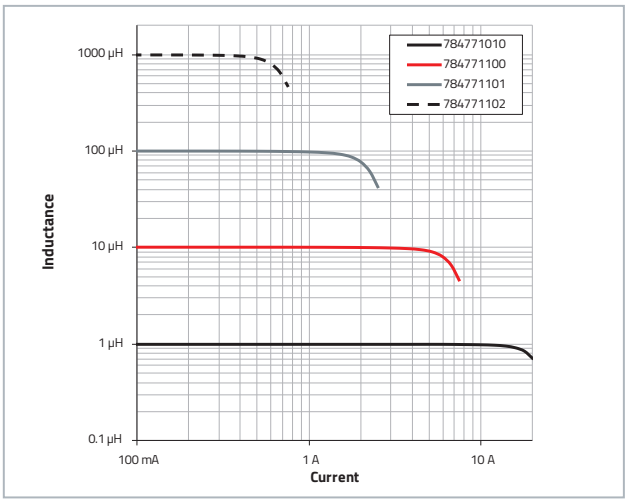


Size 1260

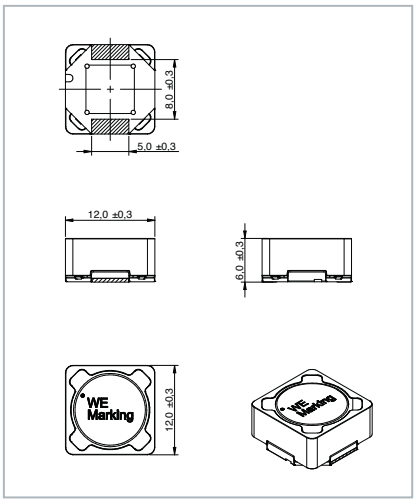
Order Code	L (µH)	Tol. L (%)	I_R (A)	I_{SAT} (A)	R_{DC} (mΩ)	$R_{DC\ max.}$ (mΩ)	f_{res} (MHz)
784771010	1	±20	9	16.5	7	8.5	139.4
784771022	2.2		7.2	10.5	10.5	12.5	82.7
784771033	3.3		6.5	9	12	14.5	68.1
784771047	4.7		6.2	8	14.5	17.5	49.8
784771068	6.8		5.5	6	18	21.5	25.5
784771082	8.2		5.05	5.5	20	24	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}: DC Resistance; $R_{DC\ max.}$: DC Resistance max.; f_{res}: Self Resonant Frequency

Inductance vs. Current



Dimensions: [mm]



Test Conditions

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

WE-PD
SMT SHIELDED POWER INDUCTOR

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

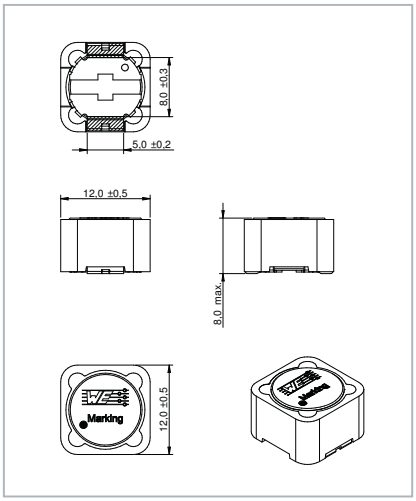
Applications
- Air conditioning, climate control units, ventilation, fan controls
- Small motor drivers & wiper control systems
- Car infotainment
- Switching regulators / DC/DC converter with extremely high efficiency (>95%)

Size 1280

Order Code	L (µH)	Tol. L (%)	I_{SAT} (A)	I_R (A)	R_{DC} (mΩ)	$R_{DC\ max.}$ (mΩ)	f_{res} (MHz)
74477001	1.2	±30	21	13.5	4.6	7	45
744770015	1.5	±30	19	16.5	3.2	5	42
74477002	2.4	±30	15	11.5	6.3	9	41
74477003	3.5	±30	12.5	10.2	8	11	37.5
74477004	4.7	±30	11	9.5	9	12	31.2
74477005	5.6	±30	10	8.7	10.5	13.5	24
74477006	6.1	±30	9.5	8.5	11	14	25
74477007	7.6	±30	8.5	8.4	11.5	15	21.3
74477010	10	±20	7.5	7	15	20	18
744770112	12	±20	6.5	6.2	16	21	16
744770115	15	±20	6	5.8	18	23	14.5
744770118	18	±20	5.4	5	25	32	13.2
744770122	22	±20	5	4.6	29	35	12
744770127	27	±20	4.3	4.2	31	38	10
744770133	33	±20	3.9	3.6	44	53	8.5
744770139	39	±20	3.6	3.3	47	56	8.2
744770147	47	±20	3.3	3	53	64	7.9
744770156	56	±20	3	2.8	59	71	7.1
744770168	68	±20	2.7	2.5	76	90	6.4
744770182	82	±20	2.5	2.3	86	105	3.5
74477020	100	±20	2.4	2.2	117	140	5.2
744770215	150	±20	1.8	1.8	145	175	3
744770218	180	±20	1.7	1.6	182	220	4.2
744770222	220	±20	1.5	1.4	230	275	3.8
744770233	330	±20	1.2	1.1	345	410	3
744770247	470	±20	1.05	0.98	450	540	2.6
744770256	560	±20	0.95	0.87	570	680	2.5
744770268	680	±20	0.85	0.75	780	930	2.2
744770282	820	±20	0.8	0.7	870	1050	2
74477030	1000	±20	0.7	0.65	980	1180	1.8
744770315	1500	±20	0.57	0.5	1430	1720	1.2

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

Dimensions: [mm]



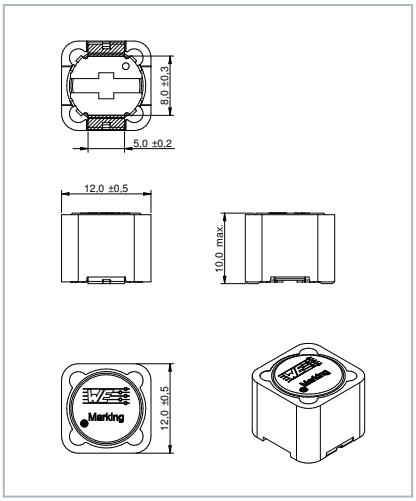
Check the complete series:
www.we-online.com/we-pd-automotive

Size 1210

Order Code	L (µH)	Tol. L (%)	I_{SAT} (A)	I_R (A)	R_{DC} (mΩ)	$R_{DC\ max.}$ (mΩ)	f_{res} (MHz)
7447709001	1	±20	25	13	4	6	120
7447709002	2.2		20	11.5	5	6	65
7447709003	3.5		16.5	11	6	9	45
7447709004	4.7		13	9.3	7	11	38
7447709006	6.8		12.8	8.4	9	14	23
7447709100	10		10.5	7.1	13	21	21
7447709150	15		8	6.5	21	26	17
7447709220	22		6.5	5.3	23	28	10
7447709270	27		5.8	4.6	30	40	8
7447709330	33		5.5	4.2	37	45	8.5
7447709390	39		5	4.1	44	56	6
7447709470	47		4.5	3.8	46	60	6.5
7447709680	68		3.6	3.2	69	89	5.5
7447709820	82		3.4	2.75	90.5	105	4.5
7447709101	100		3.1	2.5	100	110	4.3
7447709151	150		2.7	2.1	151	200	3.5
7447709221	220		2.2	1.8	193	300	2.7
7447709271	270		2.1	1.6	248	330	2.5
7447709331	330		1.7	1.5	363	430	2
7447709471	470		1.5	1.4	437	560	1.8
7447709681	680		1.3	1.1	660	825	1.5
7447709821	820		1.1	0.95	815	1000	1.2
7447709102	1000		1	0.9	930	1200	1
7447709152	1500		0.8	0.8	1800	2300	0.9
7447709222	2200		0.75	0.53	3250	3750	0.66

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

Dimensions: [mm]



WE-PD2SA
SMT SHIELDED POWER INDUCTOR

Characteristics
- 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
- Operating temperature: -50 °C up to +150 °C
- AEC-Q200

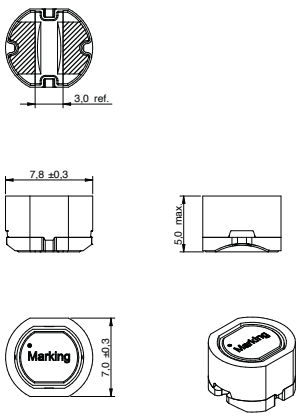
Applications
- Switching regulators with low operating voltage
- Multimedia applications

Size 7850

Order Code	L (µH)	Tol. L (%)	I_R (A)	I_{SAT} (A)	R_{DC} (mΩ)	$R_{DC\ max.}$ (mΩ)
784787012	1.2	±25	4.85	6	8.5	13
784787027	2.7		4.35	4.5	13.5	17
784787039	3.9		3.8	4	16.7	20
784787047	4.7		3.3	3.6	24.3	29
784787068	6.8		3	3	27	33
784787082	8.2		2.7	2.8	33	39
784787100	10		2.6	2.6	36.5	43
784787120	12		2.45	2.4	45	52
784787150	15		2.3	2.1	52	60
784787180	18		2.15	1.9	67	78
784787220	22		1.83	1.7	88	103
784787330	33		1.48	1.3	137	161
784787470	47		1.25	1.15	206	243
784787680	68		1.12	1	246	290
784787820	82		1.04	0.9	278	328
784787101	100		0.95	0.87	396	467
784787121	120		0.73	0.8	545	643
784787151	150		0.71	0.7	610	719
784787181	180		0.68	0.62	673	794
784787221	220		0.67	0.58	743	876

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

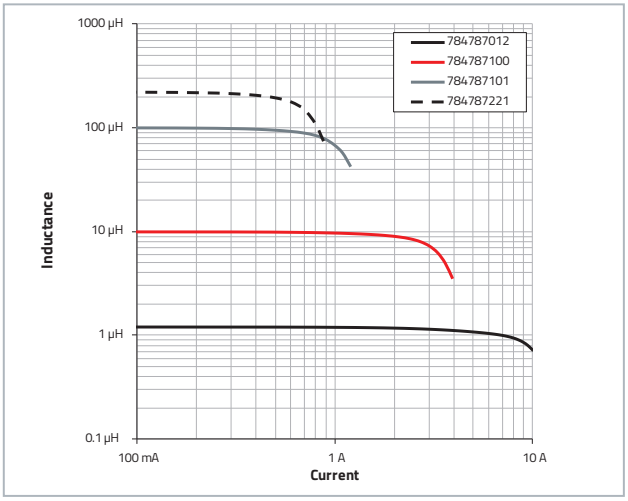
Dimensions: [mm]



Test Conditions

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

Inductance vs. Current



Check the complete series:
www.we-online.com/we-pd2sa

WE-HCIA
SMD FLAT WIRE HIGH CURRENT INDUCTOR

Characteristics
- Magnetically shielded rod-core inductor
- Operating temperature: -55 °C up to +150 °C
- Current capability up to 28 A
- AEC-Q200

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

Saturation current up to 36 A

Size 7050

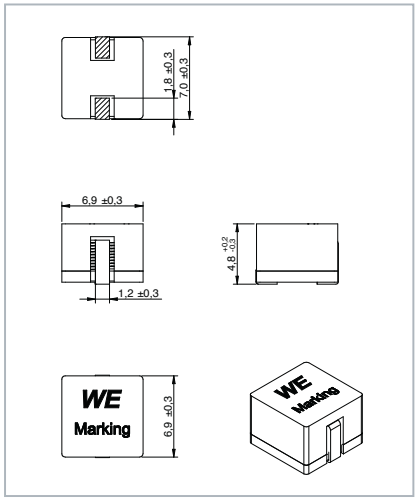
Order Code	L (µH)	Tol. L (%)	I_R (A)	I_{SAT} (A)	R_{DC} (mΩ)	$R_{DC\ max.}$ (mΩ)	f_{res} (MHz)
7843140047	0.47	±20	16.9	25	1.49	1.65	292
784314011	1.1		14.7	15.2	3.15	3.47	147
784314033	3.3		9.2	8.7	8.75	9.62	68
784314049	4.9		7.6	7.2	14.75	15.85	64
784314065	6.5		6.3	6.4	21.5	23.65	50
784314100	10		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}: DC Resistance; $R_{DC\ max.}$: DC Resistance max.; f_{res}: Self Resonant Frequency

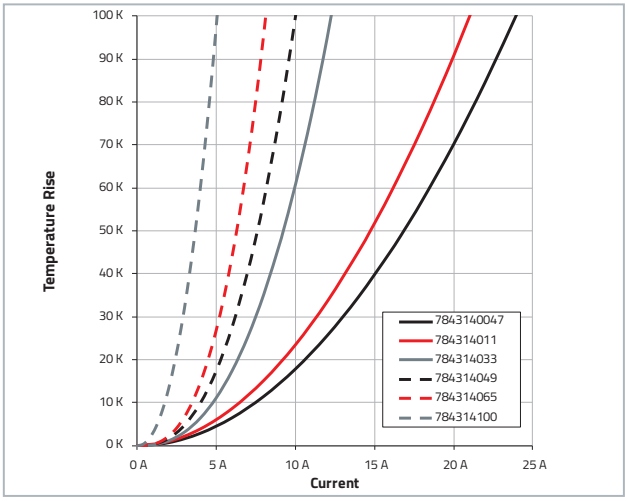
Test Conditions

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

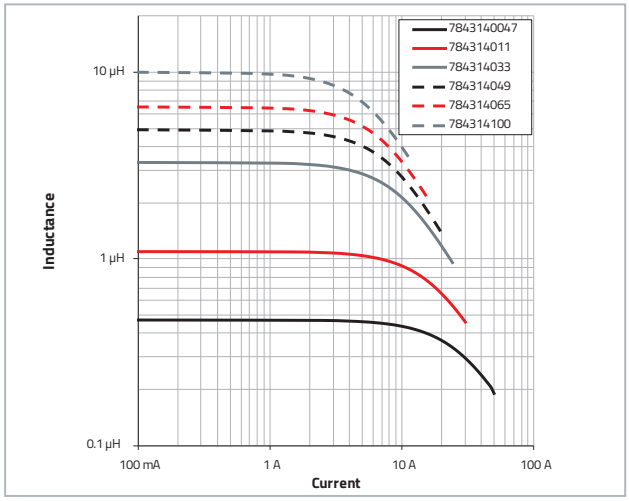
Dimensions: [mm]



Temperature Rise vs. Current



Inductance vs. Current



Check the complete series:
www.we-online.com/we-hcia

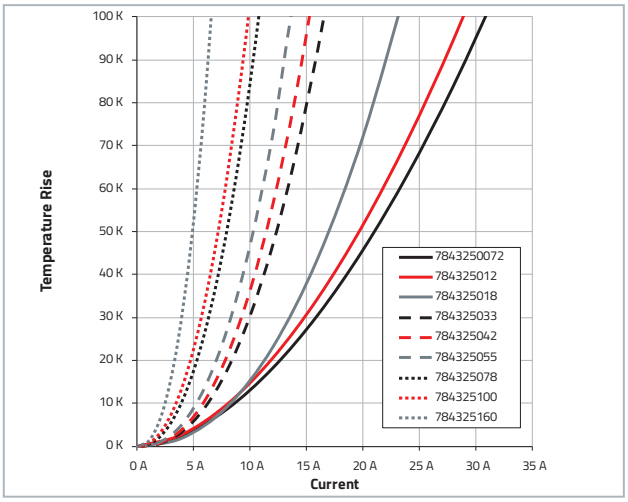
WE-HCIA
SMD FLAT WIRE HIGH CURRENT INDUCTOR

Size 1050

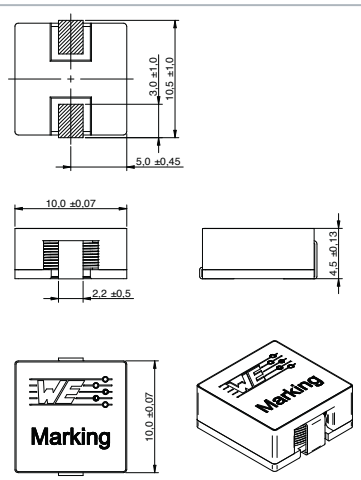
Order Code	L (µH)	Tol. L	I_R (A)	I_{SAT} (A)	R_{DC} (mΩ)	$R_{DC\ max.}$ (mΩ)	f_{res} (MHz)
7843250072	0.72	±20%	22	36.1	1.26	1.38	103
784325012	1.2		20	30	1.86	2.04	76
784325018	1.8		16	25	3	3.3	60
784325024	2.4		14	20.7	4.9	5.4	55
784325033	3.3		12	18	5.2	5.75	41
784325042	4.2		11	15.7	7.1	7.8	36
784325055	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}: DC Resistance; $R_{DC\ max.}$: DC Resistance max.; f_{res}: Self Resonant Frequency

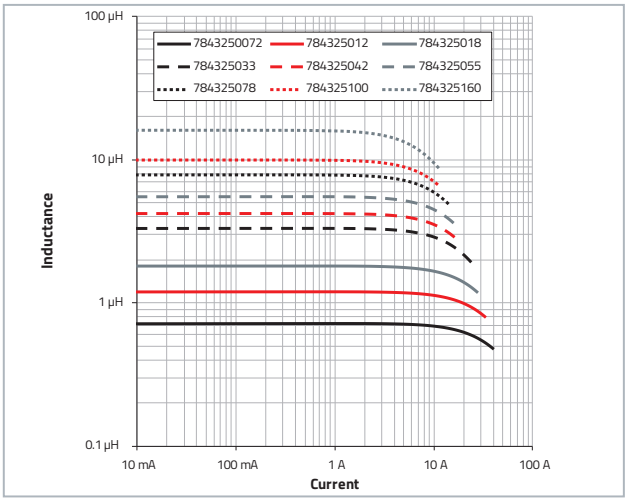
Temperature Rise vs. Current



Dimensions: [mm]



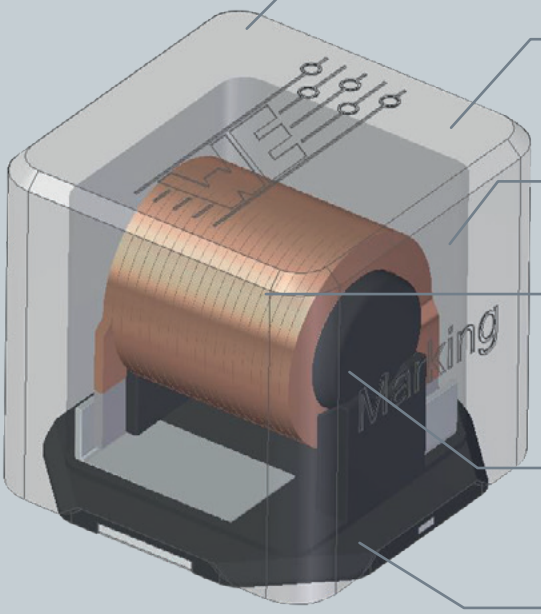
Inductance vs. Current



Test Conditions

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

WE-CHSA / WE-CHSA P
PERFORMANCE SMD HIGH CURRENT INDUCTOR



Shielded construction
- Improved electromagnetic radiation

Patented airgap design
- High precision airgap fixing system ensures stable electrical parameters

MnZn housing
- High permeability and low losses

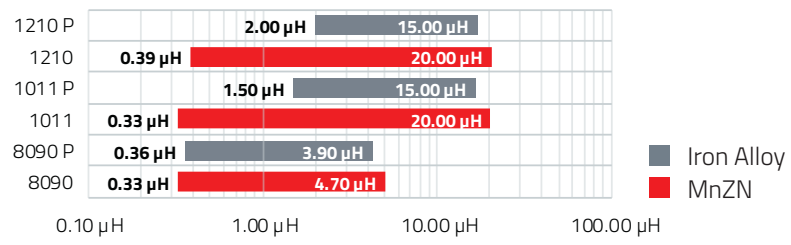
Flat wire
- High filling factor ensures maximum electrical performance
- Extremely low R_{DC} for high current capabilities

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 winded with round wire:
1212 P: 78433290030, 78433290051, 78433290082, 78433290110
1212: 7843320039, 7843320068, 7843320100, 7843320150
1011: 7843330033, 7843330560, 7843330100

WE-CHSA
SMD HIGH CURRENT INDUCTOR

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

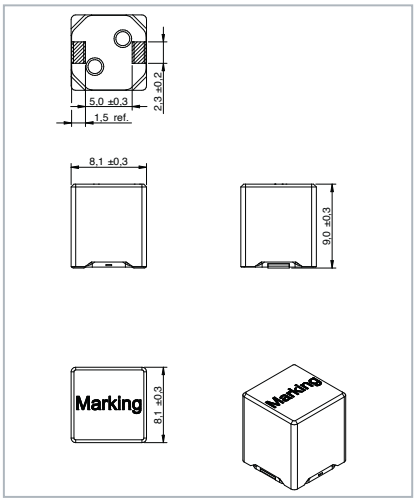
Applications
- Filter choke for motor electronics
- Car infotainment
- Multimedia applications

Size 8090

Order Code	L (µH)	Tol. L	I_R (A)	I_{SAT} (A)	R_{DC} (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}: DC Resistance; $R_{DC\ max.}$: DC Resistance max.; f_{res}: Self Resonant Frequency

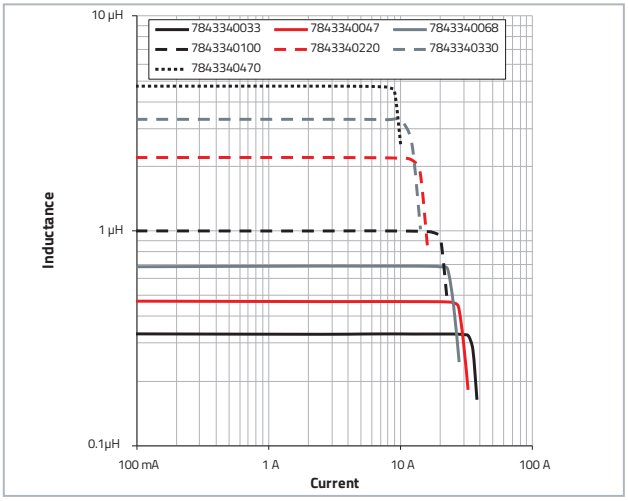
Dimensions: [mm]



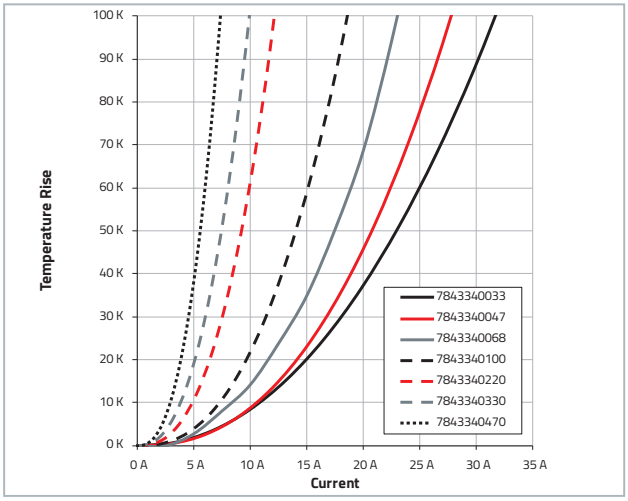
Test Conditions

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

Inductance vs. Current



Temperature Rise vs. Current

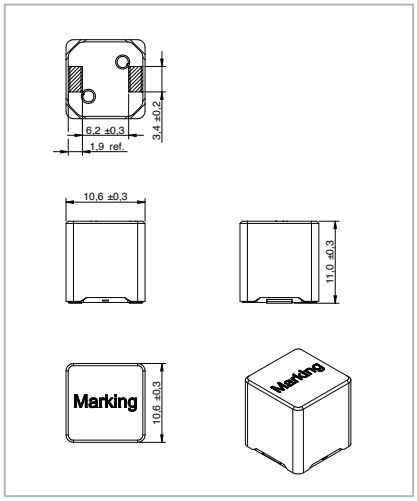


Size 1011

Order Code	L (µH)	Tol. L	I_R (A)	I_{SAT} (A)	R_{DC} (mΩ)	$R_{DC\ max.}$ (mΩ)	f_{res} (MHz)
7843330033	0.33	±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}: DC Resistance; $R_{DC\ max.}$: DC Resistance max.; f_{res}: Self Resonant Frequency

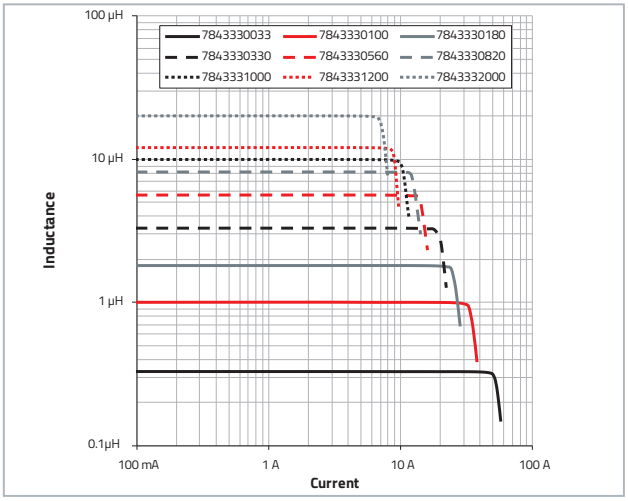
Dimensions: [mm]



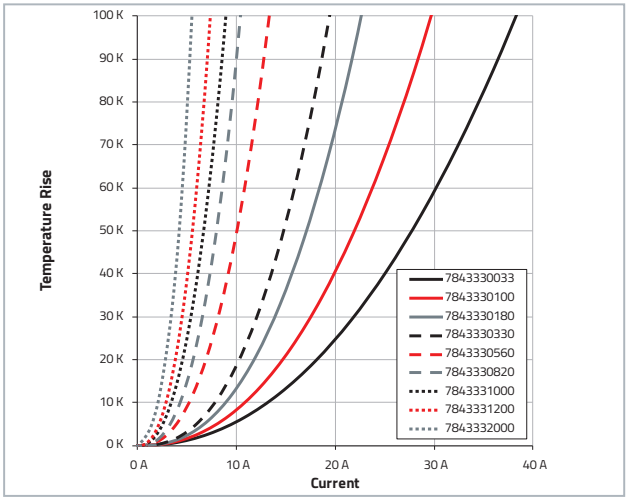
Test Conditions

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

Inductance vs. Current



Temperature Rise vs. Current



Check the complete series:
www.we-online.com/we-chsa

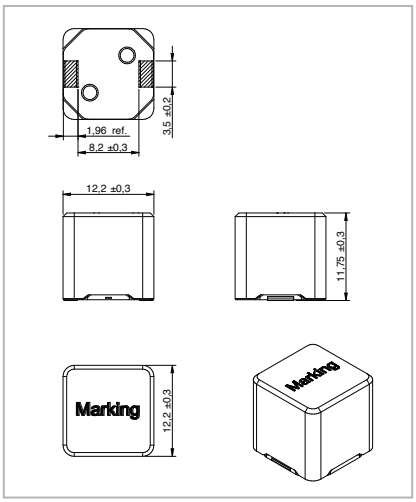
WE-CHSA
SMD HIGH CURRENT INDUCTOR

Size 1212

Order Code	L (µH)	Tol. L	I_R (A)	I_{SAT} (A)	R_{DC} (mΩ)	$R_{DC\ max.}$ (mΩ)	f_{res} (MHz)
7843320039	0.39	±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}: DC Resistance; $R_{DC\ max.}$: DC Resistance max.; f_{res}: Self Resonant Frequency

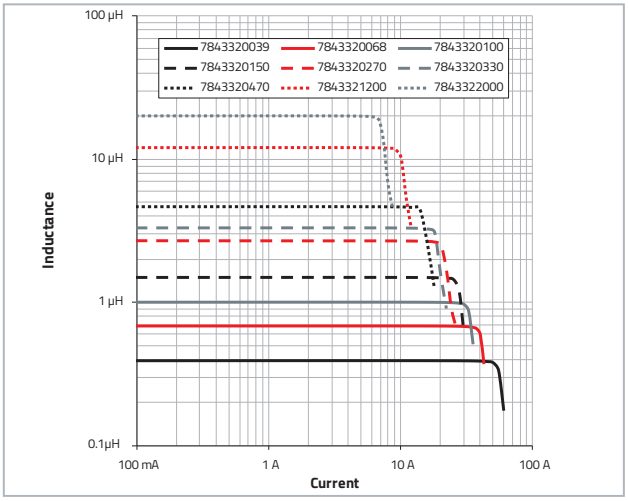
Dimensions: [mm]



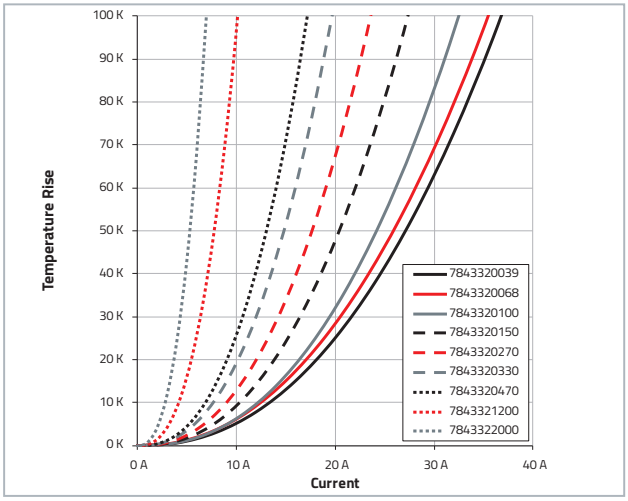
Test Conditions

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

Inductance vs. Current



Temperature Rise vs. Current



WE-CHSA
PERFORMANCE SMD HIGH CURRENT INDUCTOR

Characteristics
- Magnetically shielded rod-core inductor
- Operating temperature:
  -55 °C up to +150 °C
- 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

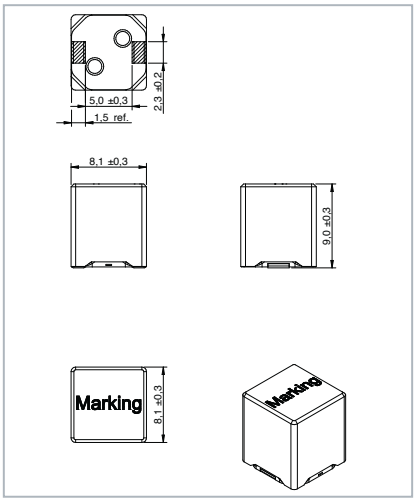
Shielded construction for minimum EMI

Size 8090 P

Order Code	L (µH)	Tol. L	I_R (A)	I_{SAT} (A)	R_{DC} (mΩ)	$R_{DC\ max.}$ (mΩ)	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}: DC Resistance; $R_{DC\ max.}$: DC Resistance max.; f_{res}: Self Resonant Frequency

Dimensions: [mm]



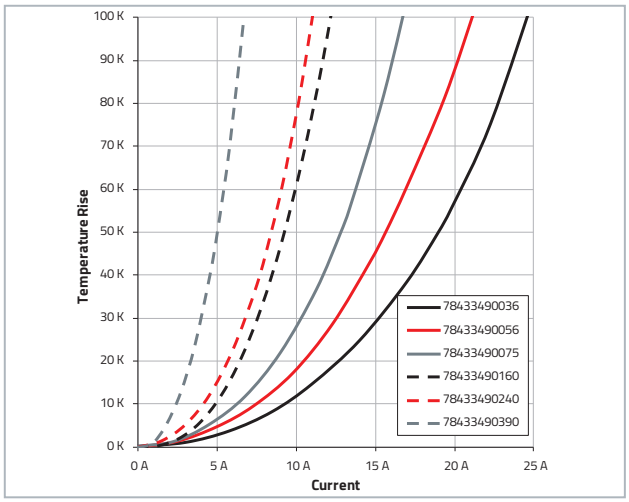
Test Conditions

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

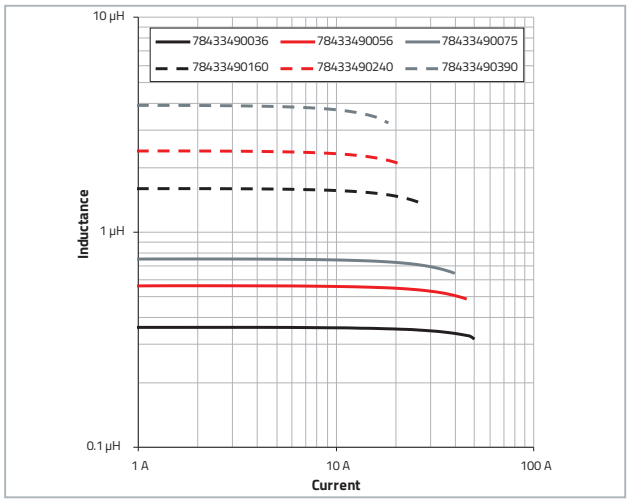
Check the complete series:
www.we-online.com/we-chsa-p

WE-CHSA
PERFORMANCE SMD HIGH CURRENT INDUCTOR

Temperature Rise vs. Current



Inductance vs. Current

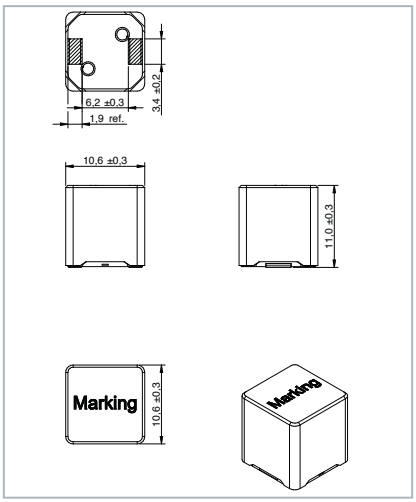


Size 1011 P

Order Code	L (µH)	Tol. L	I_R (A)	I_{SAT} (A)	R_{DC} (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}: DC Resistance; $R_{DC\ max.}$: DC Resistance max.; f_{res}: Self Resonant Frequency

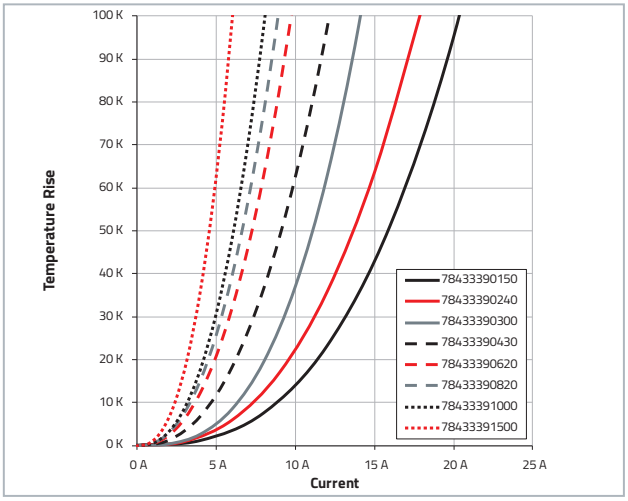
Dimensions: [mm]



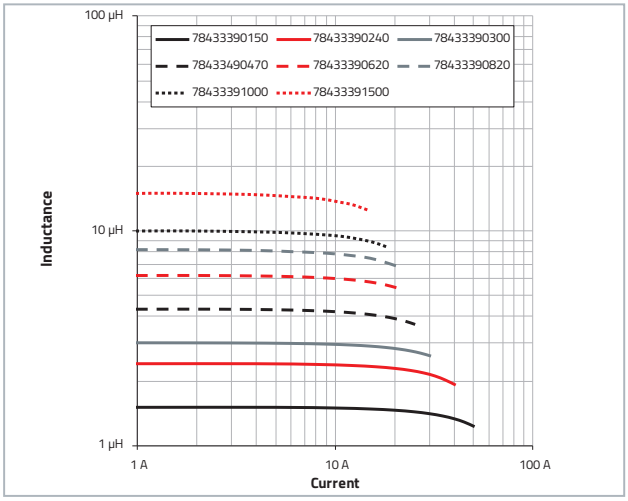
Test Conditions

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

Temperature Rise vs. Current



Inductance vs. Current



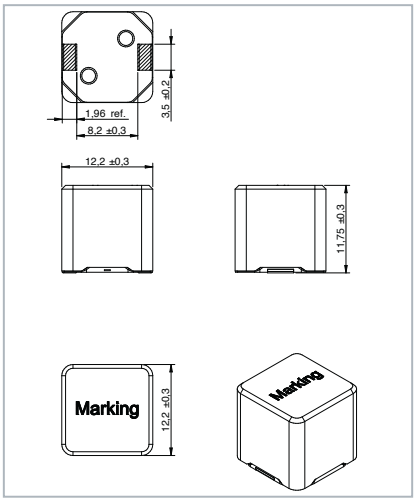
WE-CHSA
PERFORMANCE SMD HIGH CURRENT INDUCTOR

Size 1212 P

Order Code	L (µH)	Tol. L	I_R (A)	I_{SAT} (A)	R_{DC} (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}: DC Resistance; $R_{DC\ max.}$: DC Resistance max.; f_{res}: Self Resonant Frequency

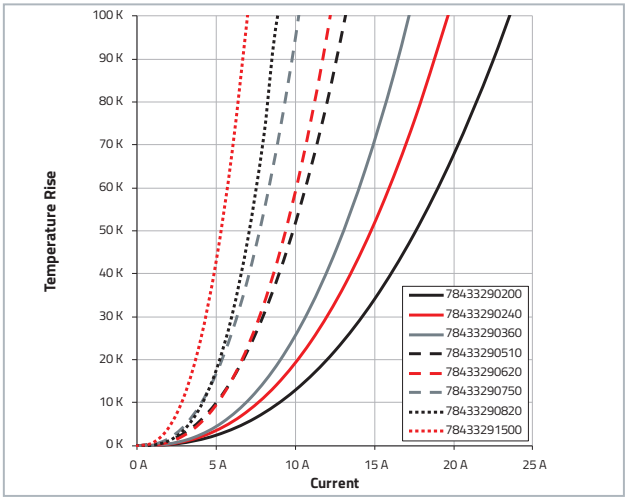
Dimensions: [mm]



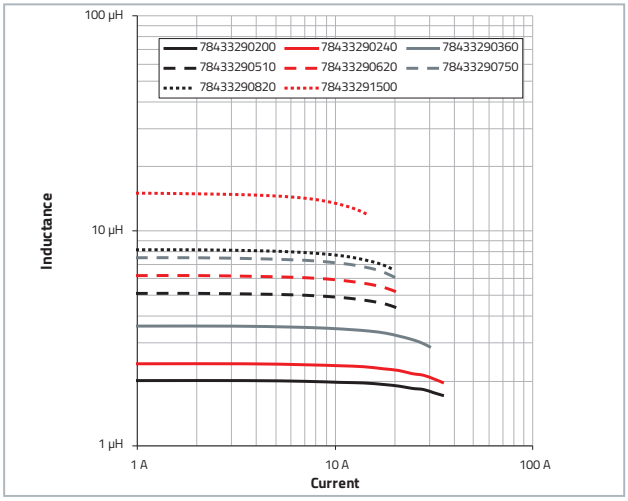
Test Conditions

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

Temperature Rise vs. Current



Inductance vs. Current



WE-HCFA
HIGH CURRENT FLAT WIRE INDUCTOR

Characteristics
- Flat wire design
- Magnetically shielded
- High rated current up to 47 A
- High saturation performance
- Excellent planarity
- Optimized for DC/DC converters
- Operating temperature: -40 °C up to +150 °C
- AEC-Q200

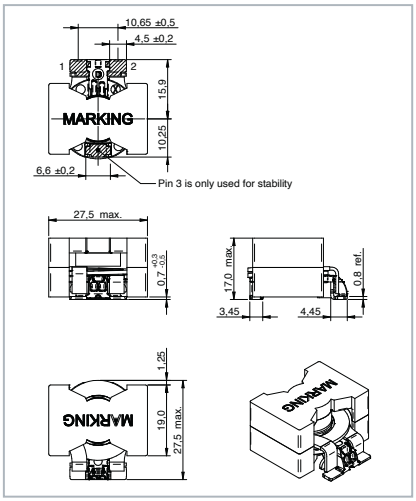
Applications
- Storage inductor for high efficiency automotive DC/DC converters
- Single and polyphase buck and boost converters
- Filter for infotainment and audio applications

Size 2818

Order Code	L (µH)	Tol. L	I_R (A)	I_{SAT} (A)	R_{DC} (mΩ)
78436432010	1	±25%	47	81	0.6
78436432015	1.5	±25%	47	53	0.6
78436432033	3.3	±15%	38	50	1.1
78436432047	4.7	±15%	38	33	1.1
78436432068	6.8	±15%	38	24	1.1
78436432100	10	±15%	38	14	1.1

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

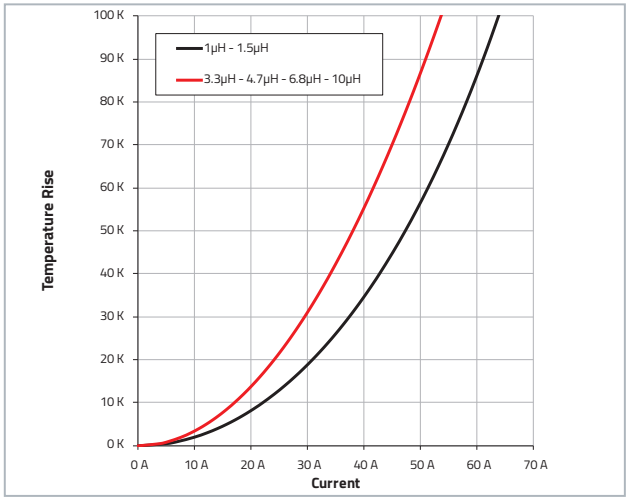
Dimensions: [mm]



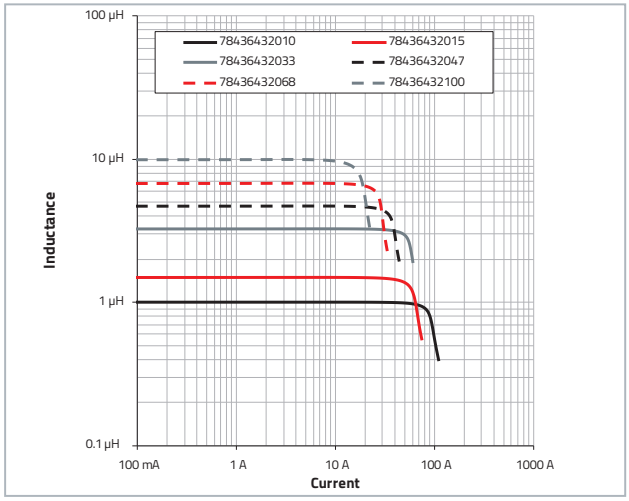
Test Conditions

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

Temperature rise vs. current

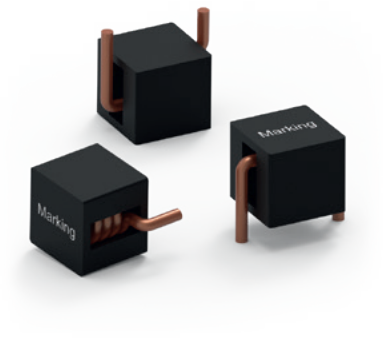


Inductance vs. current



Check the complete series:
www.we-online.com/we-hcfa

WE-HCIT
THT HIGH CURRENT INDUCTOR



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

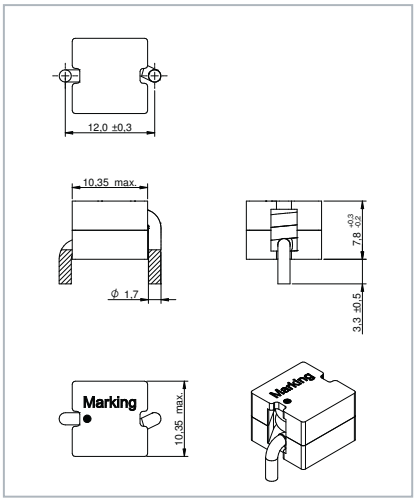
Applications
- DC/DC converter for infotainment/ communication systems
- EMI suppression for motors (seating/electrical mirrors/windshield)
- Power applications/battery management systems

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

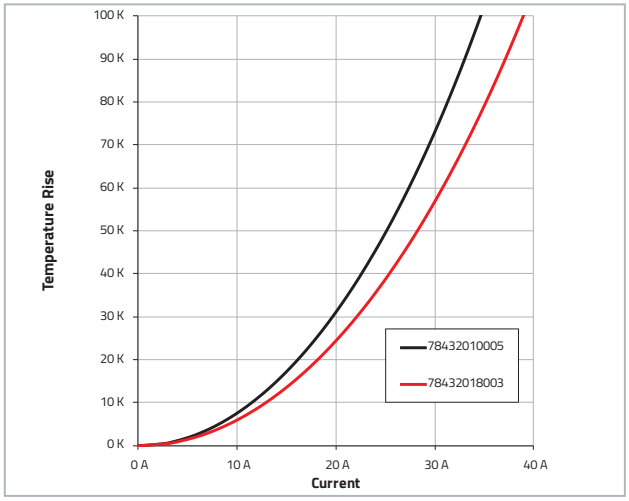
Dimensions: [mm]



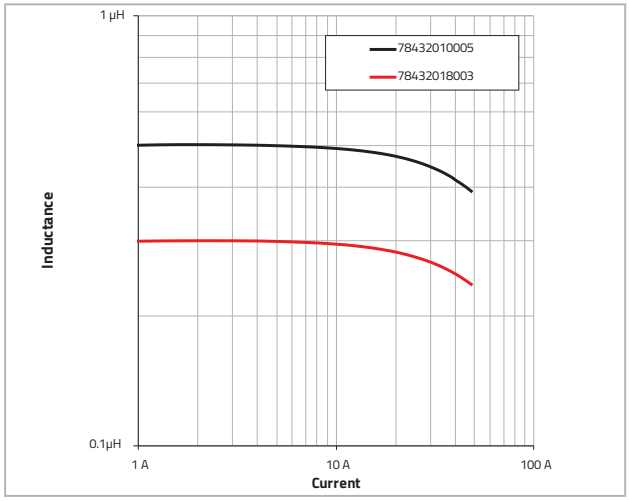
Test Conditions

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

Temperature Rise vs. Current



Inductance vs. Current



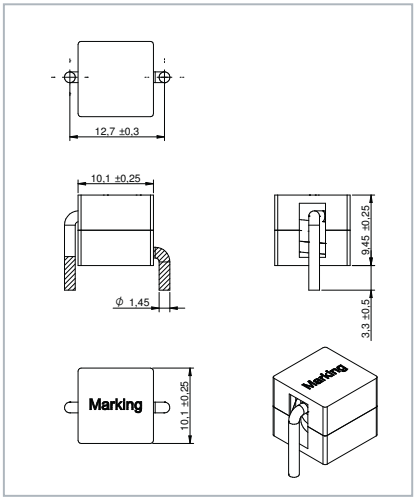
Check the complete series:
www.we-online.com/we-hcit

Size 1010

Order Code	L (µH)	Tol. L	I_R (A)	I_{SAT} (A)	R_{DC} (mΩ)	f_{res} (MHz)
78432010005	0.5	±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

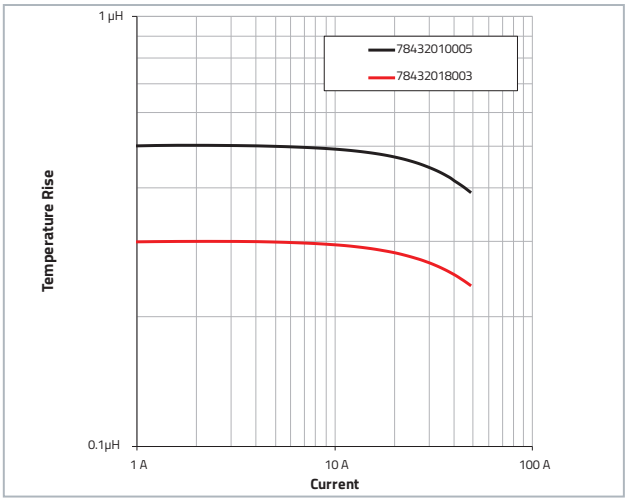
Dimensions: [mm]



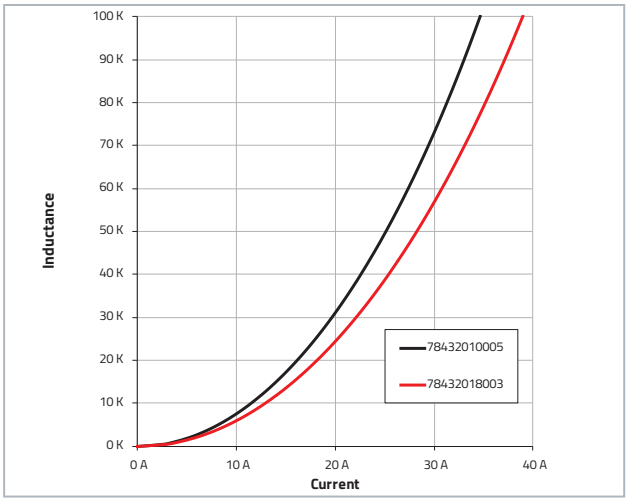
Test Conditions

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

Inductance vs. Current



Temperature Rise vs. Current



WE-LQSA
SMD SEMI-SHIELDED POWER INDUCTOR

Characteristics
- 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
- Operating temperature: -50 °C up to +150 °C

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

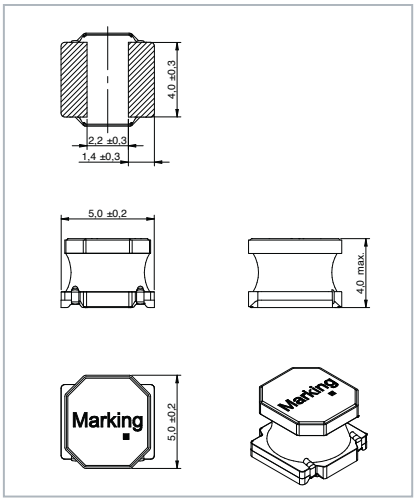
New!

Size 5040

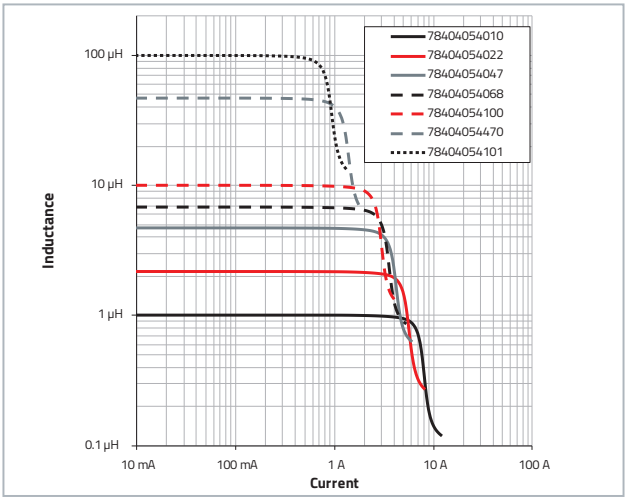
Order Code	L (µH)	I_R (A)	I_{SAT} (A)	R_{DC} (mΩ)	$R_{DC\ max.}$ (mΩ)	f_{res} (MHz)
78404054010	1	5.7	7.4	12	14	187
78404054015	1.5	5.22	6	15	18	137
78404054022	2.2	4.54	5.3	19	23	77
78404054033	3.3	4.06	4.3	24	29	48
78404054047	4.7	3.64	3.8	30	36	43
78404054068	6.8	3.01	3.2	43	52	35
78404054100	10	2.45	2.5	68	82	26
78404054150	15	2.01	2.2	90	108	22
78404054470	47	1.19	1.2	290	348	10
78404054680	68	0.97	0.99	430	516	9
78404054101	100	0.82	0.82	600	720	7

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

Dimensions: [mm]



Inductance vs. Current



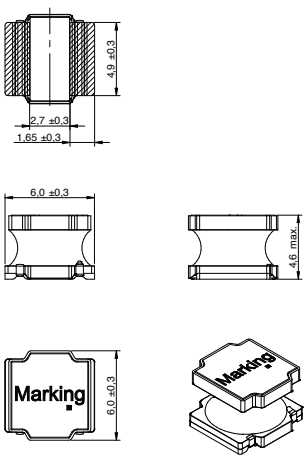
Check the complete series:
www.we-online.com/we-lqsa

Size 6045

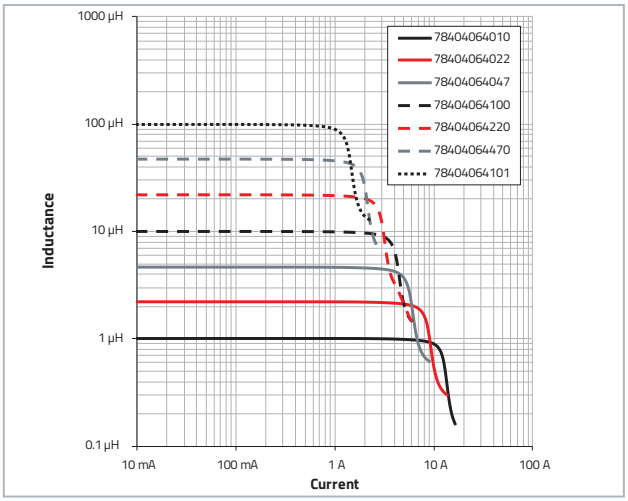
Order Code	L (µH)	I_R (A)	I_{SAT} (A)	R_{DC} (mΩ)	$R_{DC\ max.}$ (mΩ)	f_{res} (MHz)
78404064010	1	6.7	11.5	9	11	159
78404064015	1.5	6.1	9.7	11	13	115
78404064022	2.2	5.3	8.1	14	17	60
78404064033	3.3	4.1	6.5	23	28	42
78404064047	4.7	3.7	5.5	28	34	36
78404064068	6.8	3.3	4.3	35	42	27
78404064100	10	2.8	3.5	48	58	22
78404064150	15	2.4	3	73	88	17
78404064220	22	1.9	2.5	100	120	15
78404064330	33	1.7	2	140	168	12
78404064470	47	1.4	1.6	210	252	10
78404064680	68	1.1	1.4	306	367	8
78404064101	100	0.9	1.2	443	532	6

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

Dimensions: [mm]



Inductance vs. Current



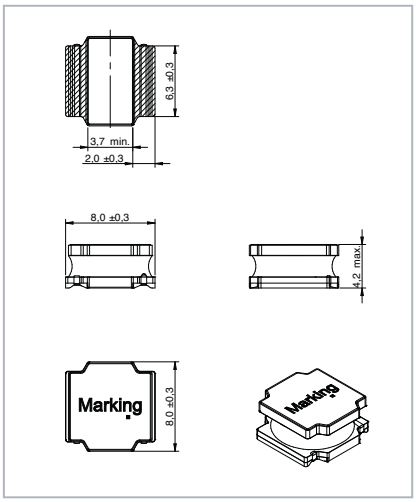
WE-LQSA
SMD SEMI-SHIELDED POWER INDUCTOR

Size 8040

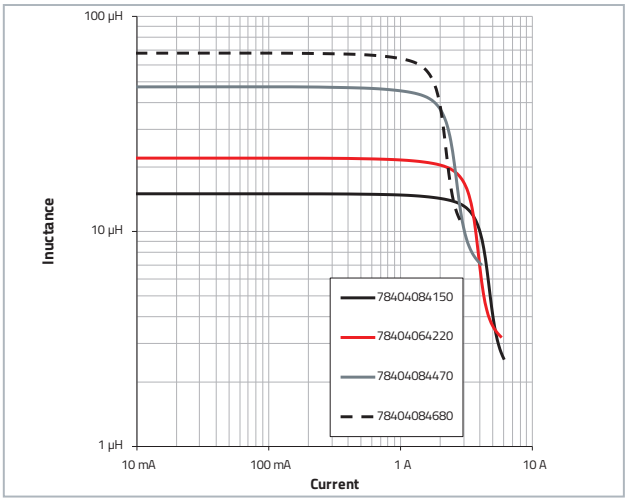
Order Code	L (µH)	I_R (A)	I_{SAT} (A)	R_{DC} (mΩ)	$R_{DC\ max.}$ (mΩ)	f_{res} (MHz)
78404084150	15	3.75	3.9	50	60	17
78404084220	22	3.2	3.2	71	85	15
78404084470	47	2.23	2.18	140	168	10
78404084680	68	1.8	1.82	204	245	8

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

Dimensions: [mm]



Inductance vs. Current



WE-PD2A
SMT POWER INDUCTOR

Characteristics
- Unshielded Power Inductor
- Saturation current up to 15 A
- Low tolerances at high inductance values
- Operating temperature: -40 °C up to +125 °C
- AEC-Q200

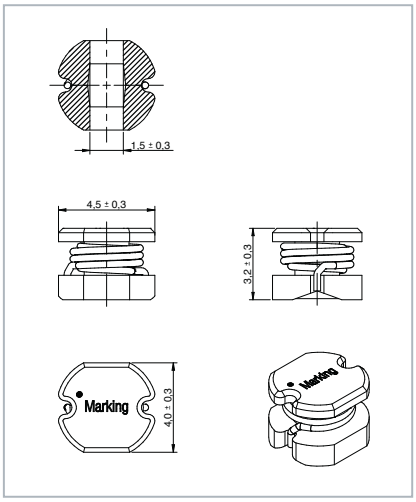
Applications
- Integrated DC/DC converter
- Switching regulators with low operating voltage
- Perfectly suitable for switching regulators with extremely high efficiency
- EMI filtering with optimal attenuation in MHz frequency range

Size 4532

Order Code	L (µH)	Tol. L	I_R (A)	I_{SAT} (A)	R_{DC} (Ω)	$R_{DC\ max.}$ (Ω)
7847730	1	±20%	4	5.72	0.014	0.049
784773018	1.8	±20%	2.7	3.6	0.028	0.064
784773022	2.2	±20%	2.5	3.38	0.034	0.071
784773033	3.3	±20%	2	2.88	0.041	0.086
784773039	3.9	±20%	1.88	2.57	0.054	0.094
784773047	4.7	±20%	1.82	2.46	0.059	0.11
784773056	5.6	±20%	1.58	2.43	0.069	0.126
784773068	6.8	±20%	1.54	2.1	0.076	0.131
784773082	8.2	±20%	1.5	1.8	0.116	0.146
78477310	10	±20%	1.45	1.74	0.118	0.182
784773112	12	±20%	1.28	1.62	0.156	0.21
784773115	15	±20%	1.2	1.46	0.204	0.235
784773118	18	±20%	1.1	1.29	0.225	0.338
784773122	22	±20%	1	1.22	0.261	0.37
784773127	27	±20%	0.94	1	0.328	0.522
784773133	33	±10%	0.86	0.9	0.37	0.54
784773139	39	±10%	0.77	0.87	0.418	0.587
784773147	47	±10%	0.68	0.77	0.523	0.844
784773156	56	±10%	0.64	0.75	0.714	0.937
784773168	68	±10%	0.56	0.68	0.754	1.117

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

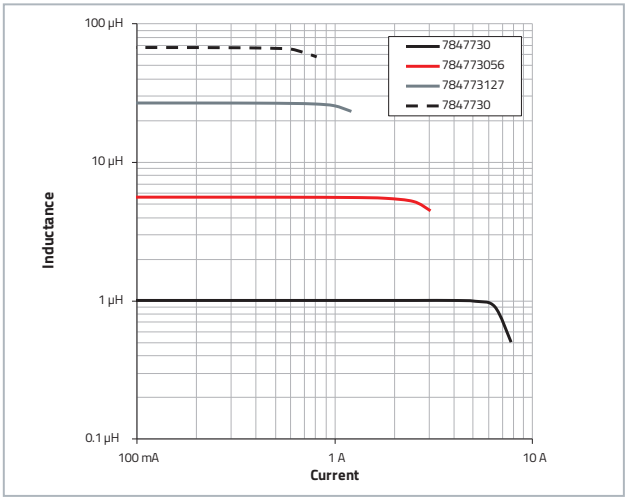
Dimensions: [mm]



Test Conditions

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

Inductance vs. Current



Check the complete series:
www.we-online.com/we-pd2a

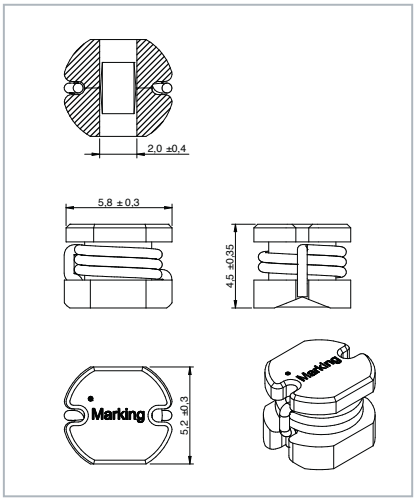
WE-PD2A
SMT POWER INDUCTOR

Size 5848

Order Code	L (µH)	Tol. L	I_R (A)	I_{SAT} (A)	R_{DC} (Ω)	$R_{DC\ max.}$ (Ω)
784774003	0.33	±20%	10.8	15.3	0.006	0.008
784774006	0.6	+40%/-20%	8.2	13.5	0.009	0.018
784774022	2.2	±20%	4.6	8.2	0.026	0.041
784774027	2.7	±20%	4	8	0.032	0.045
784774033	3.3	±20%	3.7	7.5	0.042	0.06
784774047	4.7	±20%	3	5.5	0.056	0.071
784774068	6.8	±20%	2.4	5	0.071	0.082
78477410	10	±20%	2.2	2.5	0.078	0.1
784774112	12	±20%	2	1.94	0.082	0.11
784774115	15	±20%	1.53	1.9	0.089	0.14
784774118	18	±20%	1.45	1.69	0.104	0.15
784774122	22	±20%	1.28	1.53	0.109	0.18
784774127	27	±20%	1.19	1.4	0.133	0.2
784774133	33	±10%	1.09	1.17	0.15	0.23
784774139	39	±10%	0.94	1.1	0.215	0.32
784774147	47	±10%	0.86	1	0.26	0.37
784774156	56	±10%	0.77	0.9	0.298	0.42
784774168	68	±10%	0.64	0.86	0.313	0.46
784774182	82	±10%	0.6	0.72	0.475	0.6
78477420	100	±10%	0.57	0.68	0.51	0.65
784774212	120	±10%	0.49	0.63	0.66	0.93
784774215	150	±10%	0.46	0.54	0.72	1.1
784774218	180	±10%	0.42	0.5	0.85	1.38
784774222	220	±10%	0.41	0.47	0.945	1.57

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

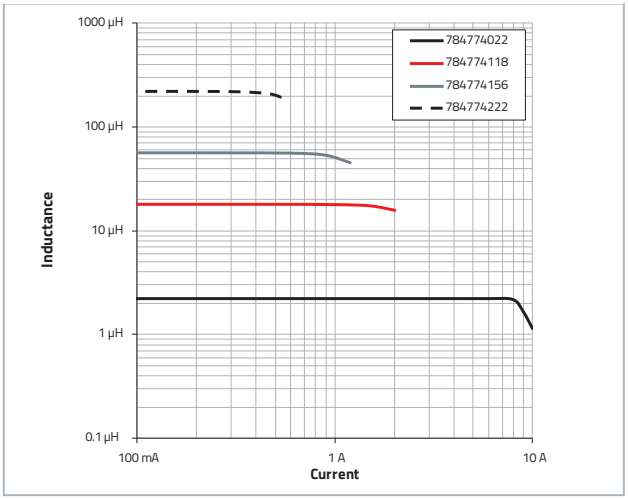
Dimensions: [mm]



Test Conditions

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

Inductance vs. Current

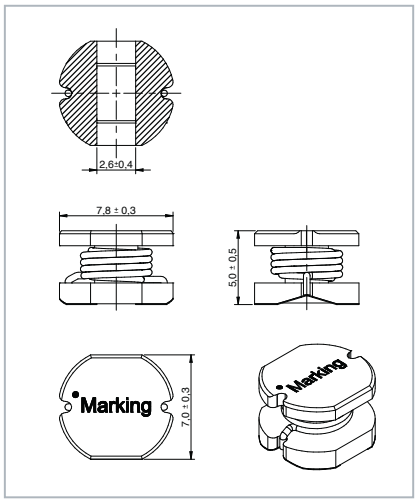


Size 7850

Order Code	L (µH)	Tol. L	I_R (A)	I_{SAT} (A)	R_{DC} (Ω)	$R_{DC\ max.}$ (Ω)
784775022	2.2	±20%	6	6	0.008	0.015
784775033	3.3	±20%	4.9	4.9	0.012	0.018
784775047	4.7	±20%	4.5	4.5	0.016	0.019
784775056	5.6	±20%	4	4	0.018	0.022
784775068	6.8	±20%	3.7	3.8	0.022	0.026
784775082	8.2	±20%	3.2	3.2	0.024	0.04
78477510	10	±10%	2.3	2.95	0.04	0.07
784775112	12	±10%	2.18	2.23	0.042	0.08
784775115	15	±10%	1.93	2.2	0.044	0.09
784775118	18	±10%	1.89	2.14	0.053	0.1
784775122	22	±10%	1.76	1.81	0.065	0.11
784775127	27	±10%	1.48	1.62	0.074	0.12
784775133	33	±10%	1.35	1.47	0.088	0.13
784775139	39	±10%	1.25	1.33	0.116	0.16
784775147	47	±10%	1.17	1.24	0.134	0.18
784775168	68	±10%	0.99	1.05	0.218	0.28
784775182	82	±10%	0.9	0.95	0.248	0.37
78477520	100	±10%	0.77	0.86	0.281	0.43
784775212	120	±10%	0.67	0.81	0.34	0.47
784775215	150	±10%	0.6	0.71	0.467	0.64
784775218	180	±10%	0.55	0.57	0.574	0.71
784775222	220	±10%	0.51	0.56	0.614	0.96
784775227	270	±10%	0.47	0.51	0.699	1.11
784775233	330	±10%	0.43	0.48	0.98	1.26
784775239	390	±10%	0.38	0.43	1.151	1.77
784775247	470	±10%	0.36	0.38	1.37	1.96

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

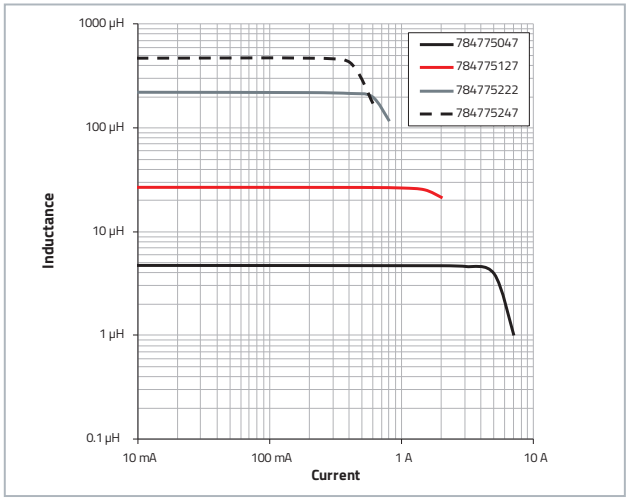
Dimensions: [mm]



Test Conditions

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

Inductance vs. Current



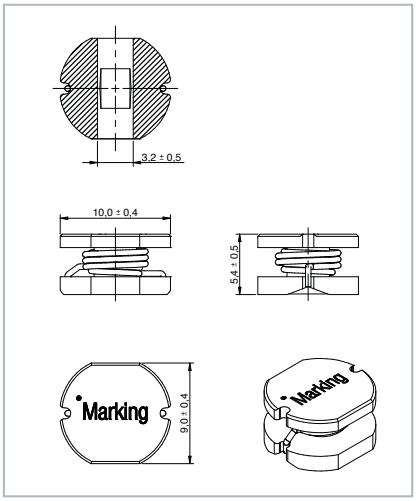
WE-PD2A
SMT POWER INDUCTOR

Size 1054

Order Code	L (µH)	Tol. L	I_R (A)	I_{SAT} (A)	R_{DC} (Ω)	$R_{DC\ max.}$ (Ω)
784776047	4.7	±20%	5	6	0.012	0.017
784776056	5.6	±20%	4.8	5.5	0.015	0.019
784776068	6.8	±20%	4.4	5	0.016	0.022
784776082	8.2	±20%	4.2	4.25	0.02	0.026
78477610	10	±10%	2.98	3.24	0.028	0.06
784776112	12	±10%	2.72	3.15	0.033	0.07
784776115	15	±10%	2.47	2.88	0.034	0.08
784776118	18	±10%	2.36	2.43	0.043	0.09
784776122	22	±10%	2.04	2.07	0.051	0.1
784776127	27	±10%	1.95	1.98	0.063	0.11
784776133	33	±10%	1.78	1.89	0.083	0.12
784776139	39	±10%	1.62	1.8	0.098	0.14
784776147	47	±10%	1.45	1.62	0.095	0.17
784776156	56	±10%	1.36	1.53	0.112	0.19
784776168	68	±10%	1.19	1.49	0.138	0.22
784776182	82	±10%	1.11	1.17	0.15	0.25
78477620	100	±10%	1.02	1.1	0.2	0.35
784776212	120	±10%	0.94	0.99	0.243	0.4
784776215	150	±10%	0.81	0.9	0.3	0.47
784776218	180	±10%	0.76	0.78	0.32	0.63
784776222	220	±10%	0.67	0.77	0.451	0.73
784776227	270	±10%	0.62	0.68	0.5	0.97
784776233	330	±10%	0.52	0.59	0.75	1.15
784776239	390	±10%	0.49	0.54	0.794	1.3
784776247	470	±10%	0.44	0.5	0.969	1.48

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

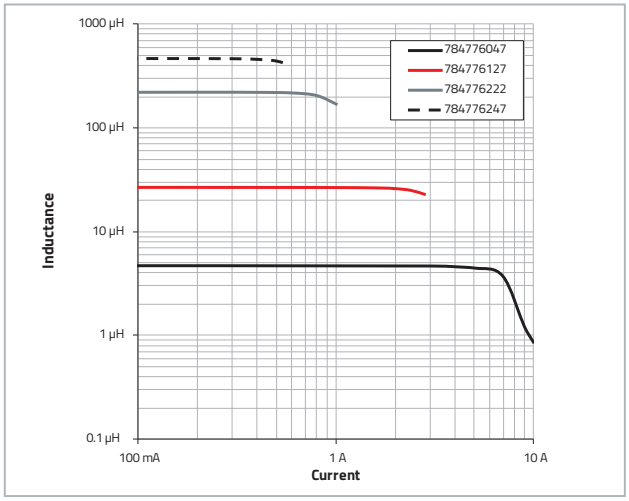
Dimensions: [mm]



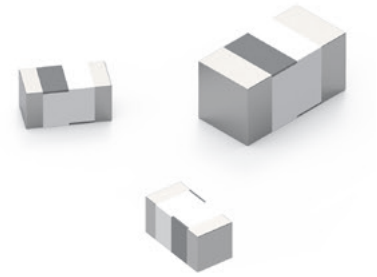
Test Conditions

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

Inductance vs. Current



WE-MCI
MULTILAYER CERAMIC SMT INDUCTOR



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

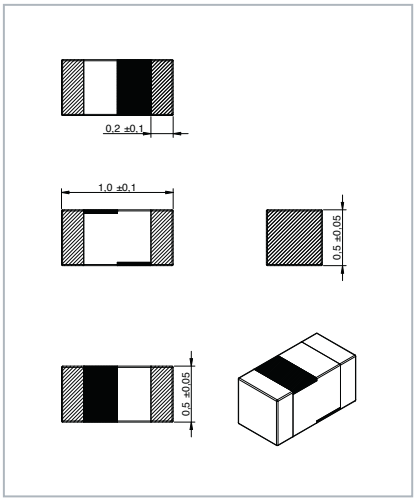
Applications
- Infotainment
- Keyless entry
- Filter circuits
- High frequency circuits
- Bluetooth

Size 0402

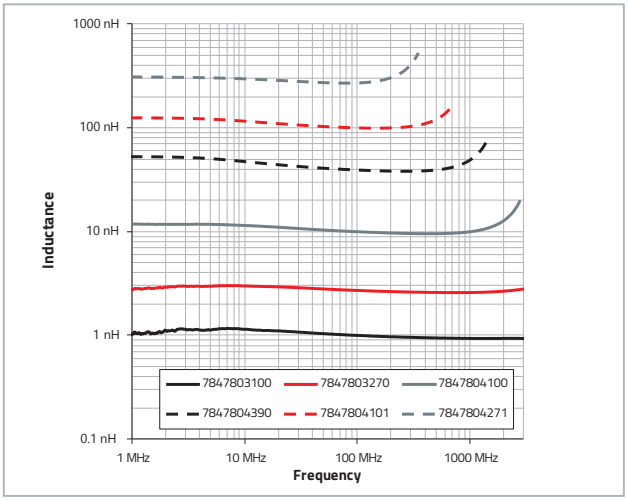
Order Code	L (nH)	Tol. L	I_R (mA)	Test Condition I_R	$R_{DC\ max.}$ (Ω)	f_{res} (MHz)	$Q_{min.}$
7847803100	1	±0.3	300		0.1	8000	
7847803270	2.7	±0.3	300		0.17	6000	
7847803330	3.3	±0.3	300		0.19	6000	
7847803390	3.9	±0.3	300		0.19	6000	
7847803560	5.6	±0.3	300		0.26	5300	
7847803680	6.8	±5%	300		0.29	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	ΔT = 20 K	0.51	2100	8
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

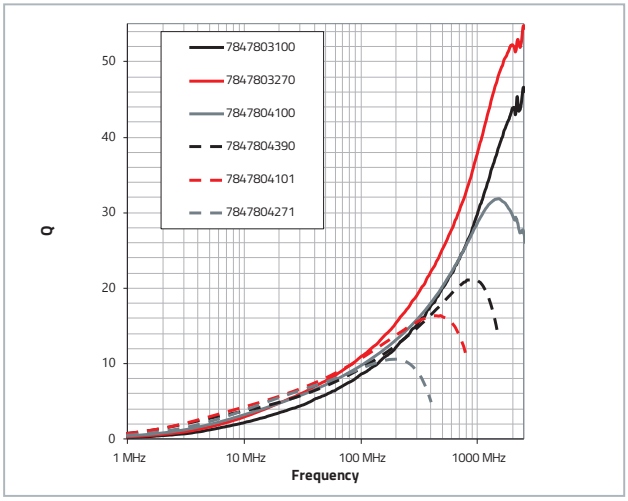
Dimensions: [mm]



Inductance vs. Frequency



Q vs. Frequency



Check the complete series:
www.we-online.com/we-mci

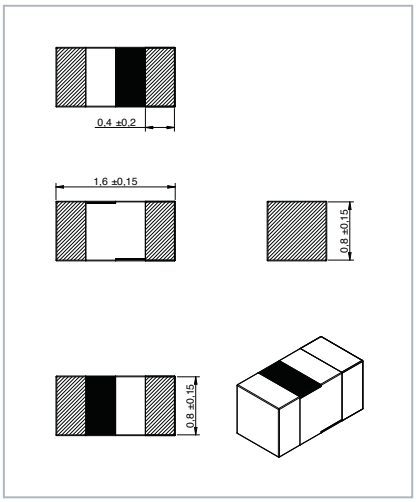
WE-MCI
MULTILAYER CERAMIC SMT INDUCTOR

Size 0603

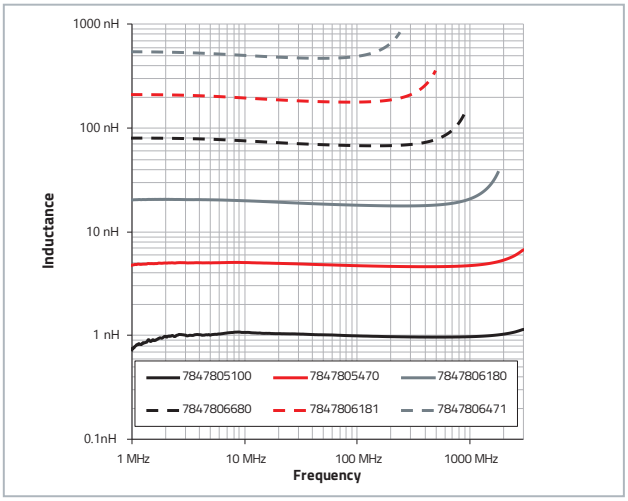
Order Code	L (nH)	Tol. L	I_R (mA)	Test Condition I_R	$R_{DC\ max.}$ (Ω)	f_{res} (MHz)	$Q_{min.}$
7847805100	1	±0.3	1300	ΔT = 20 K	0.05	10000	8
7847805220	2.2	±0.3	950		0.1	6000	8
7847805390	3.9	±0.3	850		0.12	6000	10
7847805470	4.7	±0.3	700		0.14	4000	10
7847805560	5.6	±0.3	700		0.14	4000	10
7847805680	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

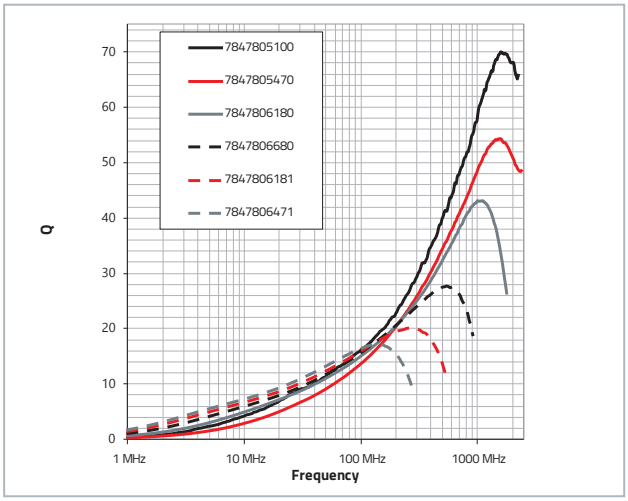
Dimensions: [mm]



Inductance vs. Frequency



Q vs. Frequency



WE-SCFA
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
- Low impedance connection from grounding to PCB
- 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

Check the complete series:
www.we-online.com/we-scfa

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

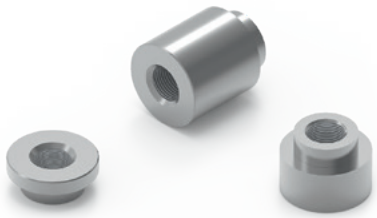
Applications
- Assembling of PCB to the housing and to other PCB

Size Ø 3.3

Order Code	L (mm)	Ø OD (mm)	Ø ID (mm)	Ø f (mm)
78614010960	1	6	4.2	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; Ø OD: Outer Diameter; Ø ID: Inner Diameter; Ø f: Hole Diameter

WE-SMSA
SMT STEEL SPACER WITH INTERNAL THREAD



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 M3

Order Code	L (mm)	Ø OD (mm)	Ø ID (mm)
78614010360	1	6	4.2
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 OD: Outer Diameter; Ø ID: Inner Diameter

Check the complete series:
www.we-online.com/we-smsa

NOTES

NOTES

MORE THAN YOU EXPECT

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