

SMD



Size 1210 (EIA) or 3225 (IEC)
Rated inductance 1 to 680 μ H
Rated current 61 to 1150 mA

Construction

- Ferrite drum core
- Laser-welded winding
- Flame-retardant encapsulation

Features

- Very high current handling capability
- Suitable for reflow soldering acc. JEDEC J-STD 020C
- lead-free, RoHS-compatible
- qualified acc. AEC-Q200

Applications

- Filtering of supply voltages, coupling, decoupling
- DC/DC converters / switch mode power supplies
- Automotive electronics
- Telecommunications

Terminals

- Electro-plated
- Base material CuSn6
- 0,4 μ m Cu; 1–2 μ m Ag; 5–7 μ m Sn (lead-free)

Marking

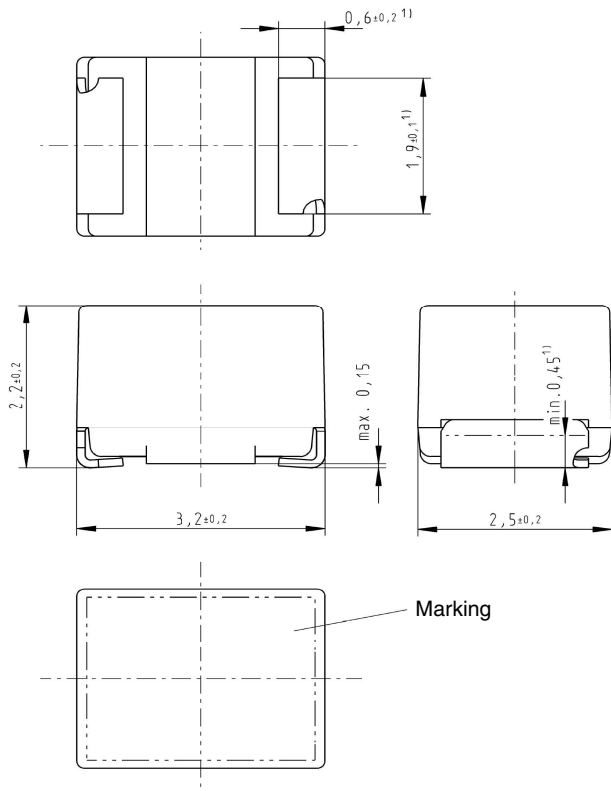
Marking on component:
L value (in μ H) and tolerance of L value (coded)
Date of manufacture (coded)

Delivery mode

8mm blister tape, reel packing 180mm $\varnothing$ reel (2000 pcs) or 330mm $\varnothing$ reel (7500 pcs)
Taping in accordance to IEC 60286–3. For details on taping and packing refer to data book “Chokes and Inductors” and to Epcos Homepage.

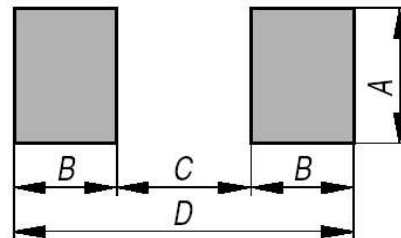


Dimensional drawing



1) Soldering area, tinned

Layout recommendation



Dimensions (mm)	A	B	C	D
Reflow soldering	2,70	1,15	1,80	4,40

Technical data and measuring conditions

Electrical specifications at $T_A = 20^\circ\text{C}$

Rated inductance L_R	Measured with impedance analyzer HP 4294A at frequency f_L
Q factor $Q_{\min}$	Measured with impedance analyzer HP 4294A at frequency f_Q
Rated current I_R	Maximum permissible DC with inductance decrease $\Delta L/L_0 \leq 10\%$ and temperature increase of $\leq 45\text{K}$ at rated temperature of 105°C
Self-resonance frequency $f_{\text{res},\min}$	Measured with network analyzer HP 8753
DC resistance $R_{\max}$	measuring current $< I_R$
Climatic category	55/150/56 to IEC 60068-1
Solderability	lead-free to IEC 60068-2-58 and Jedec J-STD 002B / JESD22-B102D
Resistance to soldering heat	to IEC 60068-2-20 and MIL-STD-202, method 210
Permissible PCB bending	2mm (100mm long standard PCB)
Weight	Approx. 50mg


Characteristics and ordering codes

L_R	Tolerance ¹⁾	Q_{min}	$f_L; f_Q$	I_R	R_{max}	$f_{res,min}$	Ordering code ²⁾ ($\varnothing$ 180-mm reel)
μH			MHz	mA	Ω	MHz	

Core material: ferrite

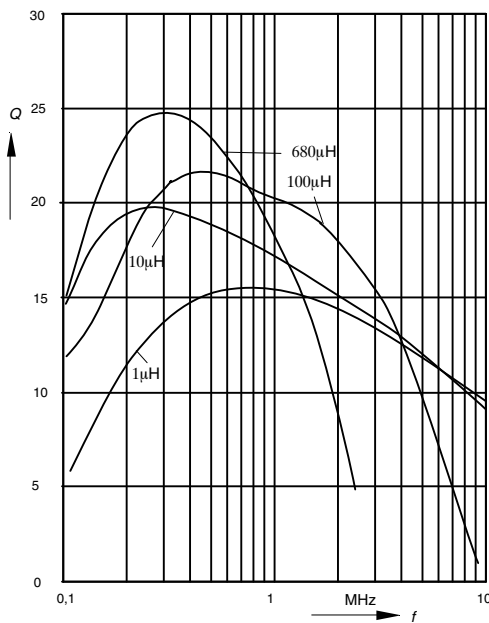
1,0	$\pm 10\%$ $\triangle K$	8	7,96	1150	0,10	150	B82422H1102K000
1,5		8	7,96	900	0,14	110	B82422H1152K000
2,2		8	7,96	800	0,16	90	B82422H1222K000
3,3	$\pm 5\%$ $\triangle J$ $\pm 10\%$ $\triangle K$	8	7,96	770	0,18	70	B82422H1332+000
4,7		8	7,96	700	0,25	46	B82422H1472+000
6,8		8	7,96	570	0,35	35	B82422H1682+000
10		12	2,52	500	0,46	30	B82422H1103+000
15		12	2,52	390	0,72	26	B82422H1153+000
22		12	2,52	330	1,00	21	B82422H1223+000
33		15	2,52	280	1,40	15	B82422H1333+000
47		15	2,52	230	2,10	12	B82422H1473+000
68		15	2,52	180	3,40	10	B82422H1683+000
100		20	0,796	150	4,80	8,0	B82422H1104+000
150		20	0,796	120	7,50	6,0	B82422H1154+000
220		20	0,796	100	10,90	5,5	B82422H1224+000
330		20	0,796	90	13,00	4,5	B82422H1334+000
470		20	0,796	76	20,00	3,5	B82422H1474+000
680		20	0,796	61	31,00	3,0	B82422H1684+000

1) Closer tolerances and special versions upon request.

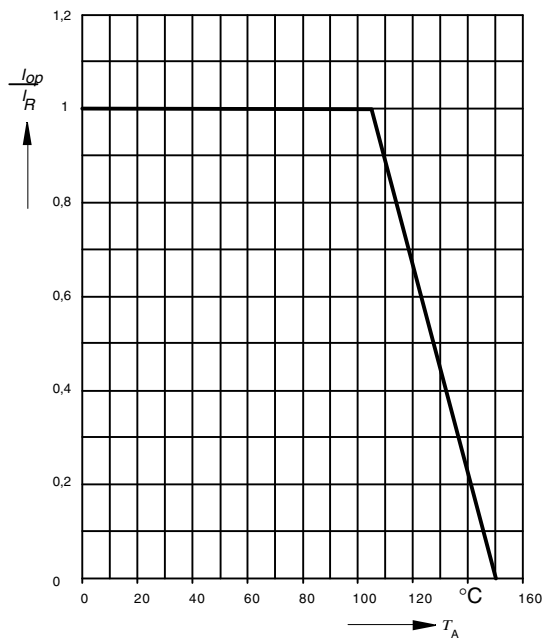
2) Replace the + by the code letter for the required inductance tolerance.



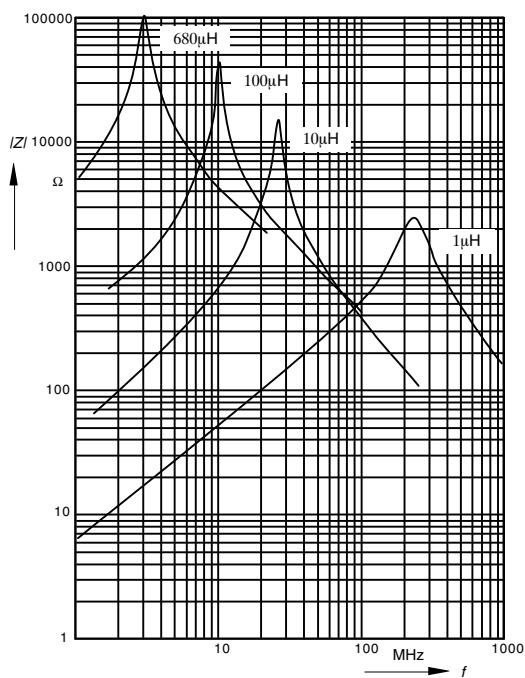
Q factor versus frequency f
measured with Agilent 4294A



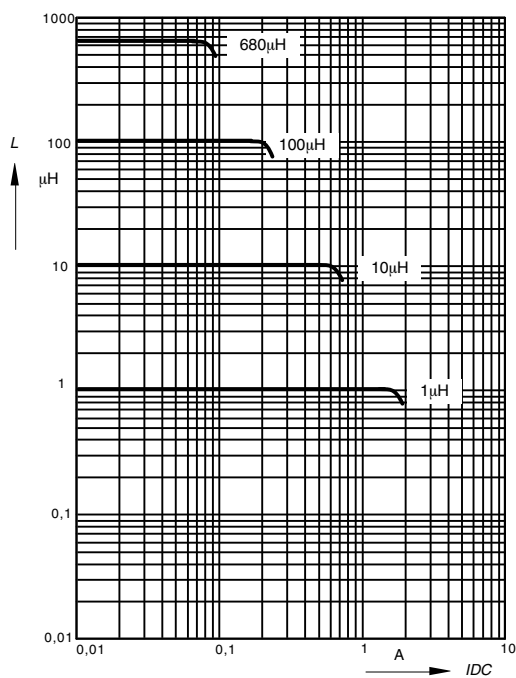
Current derating I_{op}/I_R
versus ambient temperature T_A



Impedance $|Z|$ versus frequency f
measured with Agilent 4294A



inductance L versus dc load current I_{DC}
measured with LCR meter Agilent 4284A



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