



Size 1210 (EIA) or 3225 (IEC)
Rated inductance 0,0082 to 100 μ H
Rated current 65 to 800 mA



Construction

- Ceramic or ferrite core
- Laser-welded winding
- Flame-retardant encapsulation

Features

- Very wide temperature range (up to 145 °C)
- High Q factor
- High resonance frequency
- Suitable for reflow (IR and vapor phase) and wave soldering

Applications

- Filtering of supply voltages, coupling, decoupling
- Antenna systems
- Automotive electronics
- Telecommunications

Terminals

- Electro-plated
- 0,4 μ m Cu, 1–2 μ m Ag, 5–7 μ m Sn
- Base material CuSn6
- Suitable for soldering and conductive adhesion
- No leaching during wave soldering

Marking

Marking on component:

Manufacturer,

L value (in nH) and tolerance of L value (coded),
date of manufacture (coded)

Minimum data on reel:

Manufacturer, part number, ordering code,

L value and tolerance of L value,
quantity, date of packing

Delivery mode

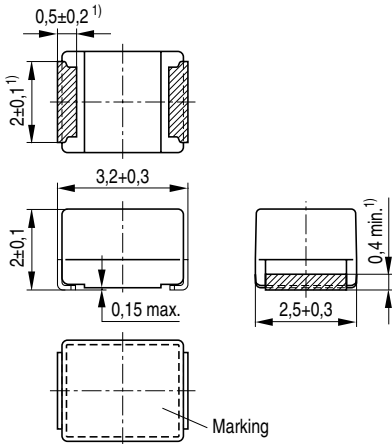
8-mm blister tape, wound on 180-mm or 330-mm $\varnothing$ reel

For details on taping, packing and packing units see page 153


General technical data

Rated inductance L_R	Measured with impedance analyzer HP 4194A at frequency f_L
Q factor $Q_{\min}$	Measured with impedance analyzer HP 4194A/HP 4291A at frequency f_Q
Rated current I_R	Maximum permissible dc with inductance decrease $\Delta L/L_0 \leq 10\%$ and temperature increase of $\leq 20\text{ K}$ at rated temperature of 125°C
Self-resonance frequency $f_{\text{res, min}}$	Measured with network analyzer HP 8753
DC resistance $R_{\max}$	Measured at 20°C ambient temperature, measuring current $< I_R$
Climatic category	In accordance with IEC 60068-1 55/125/56 ($-55^\circ\text{C}/+125^\circ\text{C}/56$ days damp heat test)
Solderability	In accordance with IEC 60068-2-58 ($215 \pm 3^\circ\text{C}$, $(3 \pm 0,3)\text{ s}$) Wetting of soldering area: $\geq 90\%$
Resistance to soldering heat	In accordance with IEC 60068-2-20 260°C , 10 s $\Delta L/L \leq \pm 3\%$
Permissible PCB bending	2 mm (100 mm long standard PCB)
Weight	Approx. 50 mg

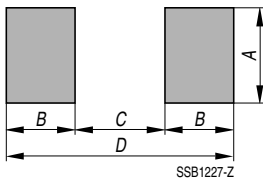
Dimensional drawing



¹⁾ Soldering area, tinned

IND0063-T-E

Layout recommendation



Dimensions (mm)	A	B	C	D
Wave soldering	2,3	1,60	2,1	5,3
Reflow soldering	2,7	1,15	2,1	4,4

Characteristics and ordering codes

L_R μH	Tolerance ¹⁾	f_L MHz	$Q_{\min}$	f_Q MHz	I_R mA	$R_{\max}$ Ω	$f_{\text{res, min}}$ MHz	Ordering code ²⁾ ($\varnothing$ 180-mm reel)
Core material: ceramics								
0,0082	$\pm 5 \%$	10	20	100	800	0,08	4000	B82422-A3829-+100
0,010	$\triangleq J$	10	20	100	750	0,09	4000	B82422-A3100-+100
0,012	$\pm 10 \%$	10	25	100	700	0,10	3500	B82422-A3120-+100
0,015	$\triangleq K$	10	27	100	640	0,12	3000	B82422-A3150-+100
0,018		10	30	100	640	0,12	2500	B82422-A3180-+100
0,022		10	30	100	600	0,14	2500	B82422-A3220-+100
0,027		10	23	50	600	0,14	1850	B82422-A3270-+100
0,033		10	20	50	540	0,17	1700	B82422-A3330-+100
0,039		10	25	50	530	0,18	1450	B82422-A3390-+100
0,047		10	26	50	510	0,19	1350	B82422-A3470-+100
0,056		10	26	50	500	0,20	1200	B82422-A3560-+100
0,068		10	27	50	480	0,21	1150	B82422-A3680-+100
0,082		10	27	50	450	0,24	1050	B82422-A3820-+100
0,10		10	25	50	440	0,26	1000	B82422-A3101-+100
0,12		1	22	30	400	0,32	880	B82422-A3121-+100
0,15		1	25	30	390	0,33	850	B82422-A3151-+100
0,18		1	25	30	360	0,38	800	B82422-A3181-+100
0,22		1	25	30	280	0,64	700	B82422-A3221-+100
0,27		1	20	30	235	0,90	650	B82422-A3271-+100
0,33		1	22	30	200	1,3	580	B82422-A3331-+100
0,39		1	22	30	190	1,4	540	B82422-A3391-+100
0,47		1	22	30	150	2,2	480	B82422-A3471-+100
0,56		1	22	30	150	2,2	400	B82422-A3561-+100
0,68		1	22	30	145	2,4	280	B82422-A3681-+100
0,82		1	22	30	140	2,5	240	B82422-A3821-+100

1) Closer tolerances and special versions upon request.

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

For reel size $\varnothing$ 330 mm append code number »8«. Example: B82422-A3829-K108


Characteristics and ordering codes (continued)

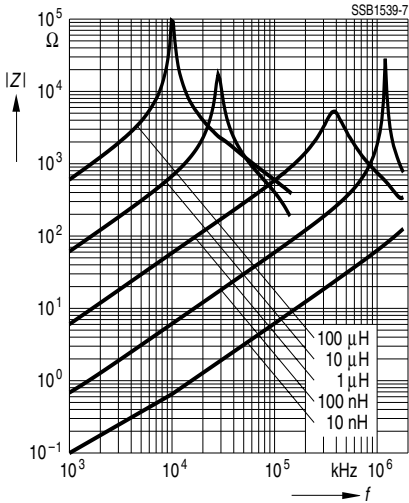
L_R μH	Tolerance ¹⁾	f_L MHz	$Q_{\min}$	f_Q MHz	I_R mA	$R_{\max}$ Ω	$f_{\text{res, min}}$ MHz	Ordering code ²⁾ ($\varnothing$ 180-mm reel)
Core material: ferrite								
1,0	$\pm 5\%$	1	20	7,96	380	0,34	320	B82422-A1102-+100
1,2	$\triangle J$	1	20	7,96	370	0,37	300	B82422-A1122-+100
1,5	$\pm 10\%$	1	20	7,96	340	0,50	270	B82422-A1152-+100
1,8	$\triangle K$	1	25	7,96	290	0,60	250	B82422-A1182-+100
2,2		1	25	7,96	270	0,75	125	B82422-A1222-+100
2,7		1	25	7,96	240	0,88	110	B82422-A1272-+100
3,3		1	27	7,96	200	1,20	110	B82422-A1332-+100
3,9		1	27	7,96	190	1,40	110	B82422-A1392-+100
4,7		1	27	7,96	150	2,20	110	B82422-A1472-+100
5,6		1	27	7,96	140	2,60	100	B82422-A1562-+100
6,8		1	27	7,96	135	2,80	90	B82422-A1682-+100
8,2		1	27	7,96	130	3,00	90	B82422-A1822-+100
10		1	27	2,52	180	1,60	25	B82422-A1103-+100
12		0,1	27	2,52	175	1,65	23	B82422-A1123-+100
15		0,1	27	2,52	165	1,85	20	B82422-A1153-+100
18		0,1	27	2,52	155	2,00	17	B82422-A1183-+100
22		0,1	27	2,52	140	2,65	16	B82422-A1223-+100
27		0,1	27	2,52	120	3,70	15	B82422-A1273-+100
33		0,1	27	2,52	105	4,50	13	B82422-A1333-+100
39		0,1	27	2,52	90	6,30	12	B82422-A1393-+100
47		0,1	27	2,52	85	7,00	11	B82422-A1473-+100
56		0,1	27	2,52	85	6,75	9	B82422-A1563-+100
68		0,1	27	2,52	80	7,70	9	B82422-A1683-+100
82		0,1	27	2,52	70	10,0	8	B82422-A1823-+100
100		0,1	27	2,52	65	11,5	7	B82422-A1104-+100

1) Closer tolerances and special versions upon request.

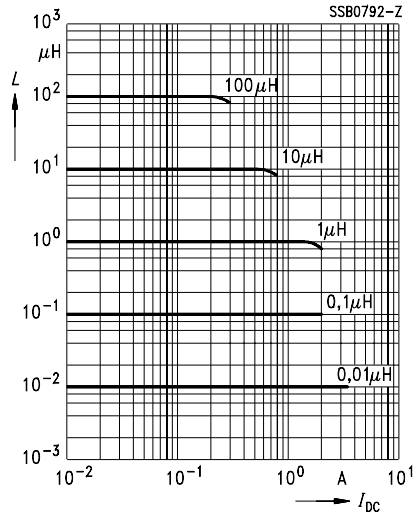
2) Replace the + by the code letter for the required inductance tolerance.

For reel size $\varnothing$ 330 mm append code number »8«. Example: B82422-A1102-K108

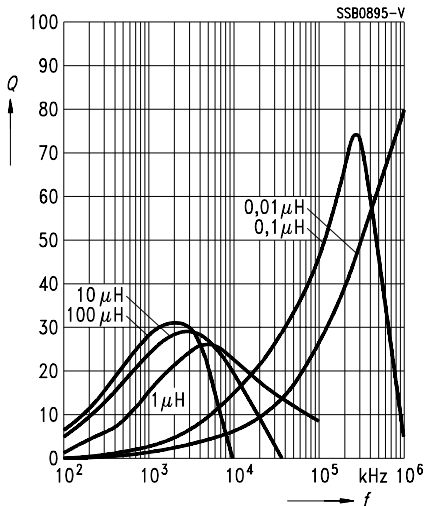
Impedance $|Z|$
versus frequency f
measured with impedance analyzer
HP 4291A



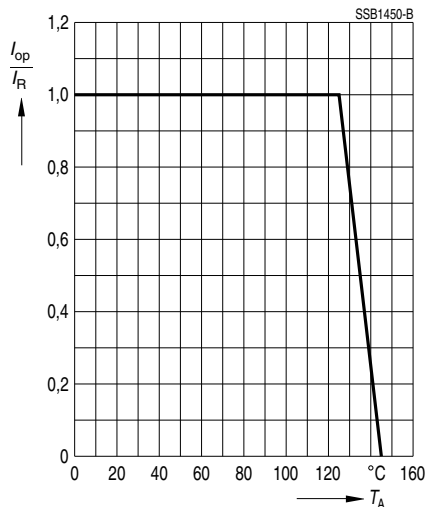
Inductance L
versus dc load current I_{DC}
measured with LCR meter
HP 4275A



Q factor versus frequency f
measured with impedance analyzer
HP 4194A / HP 4291A



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



Herausgegeben von EPCOS AG**Unternehmenskommunikation, Postfach 80 17 09, 81617 München, DEUTSCHLAND****☎ ++49 89 636 09, FAX (0 89) 636-2 26 89**

© EPCOS AG 2002. Vervielfältigung, Veröffentlichung, Verbreitung und Verwertung dieser Broschüre und ihres Inhalts ohne ausdrückliche Genehmigung der EPCOS AG nicht gestattet.

Bestellungen unterliegen den vom ZVEI empfohlenen Allgemeinen Lieferbedingungen für Erzeugnisse und Leistungen der Elektroindustrie, soweit nichts anderes vereinbart wird.

Diese Broschüre ersetzt die vorige Ausgabe.

Fragen über Technik, Preise und Liefermöglichkeiten richten Sie bitte an den Ihnen nächstgelegenen Vertrieb der EPCOS AG oder an unsere Vertriebsgesellschaften im Ausland. Bauelemente können aufgrund technischer Erfordernisse Gefahrstoffe enthalten. Auskünfte darüber bitten wir unter Angabe des betreffenden Typs ebenfalls über die zuständige Vertriebsgesellschaft einzuholen.

Published by EPCOS AG**Corporate Communications, P.O. Box 80 17 09, 81617 Munich, GERMANY****☎ ++49 89 636 09, FAX (0 89) 636-2 26 89**

© EPCOS AG 2002. Reproduction, publication and dissemination of this brochure and the information contained therein without EPCOS' prior express consent is prohibited.

Purchase orders are subject to the General Conditions for the Supply of Products and Services of the Electrical and Electronics Industry recommended by the ZVEI (German Electrical and Electronic Manufacturers' Association), unless otherwise agreed.

This brochure replaces the previous edition.

For questions on technology, prices and delivery please contact the Sales Offices of EPCOS AG or the international Representatives.

Due to technical requirements components may contain dangerous substances. For information on the type in question please also contact one of our Sales Offices.