

**Size 1210 (EIA) or 3225 (IEC)**  
**Rated inductance 0,010 to 330  $\mu$ H**  
**Rated current 40 to 450 mA**



### Construction

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

### Features

- High  $Q$  factor
- High resonance frequency
- High  $L$  value
- 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  $\mu$ m Cu; 1–2  $\mu$ m Ag; 5–7  $\mu$ m Sn
- Base material CuSn6
- Suitable for soldering and conductive adhesion
- No leaching during wave soldering

### Marking

Marking on component:

Manufacturer and letter »T«,  
 $L$  value (in  $\mu$ H) 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

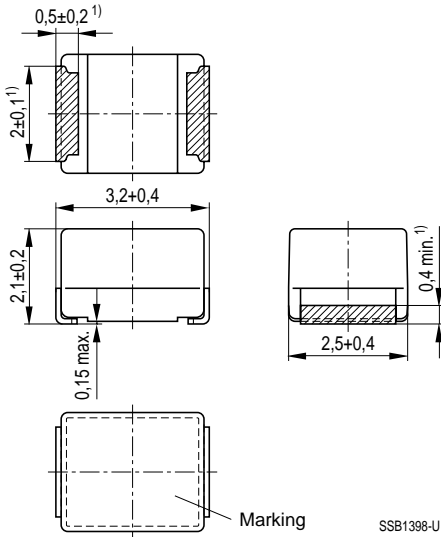
### Delivery mode

8-mm blister tape, wound on 180-mm or 330-mm  $\varnothing$  reel  
For details on taping, packing and packing units [see page 153](#)

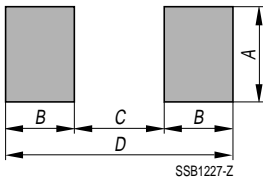

**General technical data**

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 $\leq 30\text{ K}$ at rated temperature of $85^\circ\text{C}$
Self-resonance frequency $f_{\text{res, min}}$	Measured with network analyzer HP 8753
DC resistance $R_{\max}$	Measured at $20^\circ\text{C}$ 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 60062-2-58 ( $215 \pm 3$ ) $^\circ\text{C}$ , ( $3 \pm 0,3$ ) s Wetting of soldering area: $\geq 90\%$
Resistance to soldering heat	In accordance with IEC 60068-2-20 $260^\circ\text{C}$ , 10 s $\Delta L/L \leq \pm 3\%$
Permissible PCB bending	2 mm (100 mm long standard PCB)
Weight	Approx. 50 mg

**Dimensional drawing**



**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

1) Soldering area, tinned


**Characteristics and ordering codes**

$L_R$ $\mu\text{H}$	Tolerance <sup>1)</sup>	$Q_{\min}$	$f_L; f_Q$ MHz	$I_R$ mA	$R_{\max}$ $\Omega$	$f_{\text{res, min}}$ MHz	Ordering code <sup>2)</sup> ( $\varnothing$ 180-mm reel)
Core material: ceramics							
0,010	$\pm 5\%$	15	100	450	0,10	4000	B82422-T3100+
0,012	$\triangleq J$	17	100	450	0,11	3500	B82422-T3120+
0,015	$\pm 10\%$	19	100	450	0,13	3000	B82422-T3150+
0,018	$\triangleq K$	21	100	450	0,14	2000	B82422-T3180+
0,022		23	100	450	0,16	2000	B82422-T3220+
0,027		23	100	450	0,17	1700	B82422-T3270+
0,033		25	100	450	0,18	1700	B82422-T3330+
0,039		25	100	450	0,19	1300	B82422-T3390+
0,047		26	100	450	0,20	1300	B82422-T3470+
0,056		26	100	450	0,21	1100	B82422-T3560+
0,068		27	100	450	0,23	1000	B82422-T3680+
0,082		27	100	450	0,26	1000	B82422-T3820+
0,10		28	100	450	0,31	900	B82422-T3101+
Core material: ferrite							
0,12	$\pm 5\%$	30	25,2	450	0,15	900	B82422-T1121+
0,15	$\triangleq J$	30	25,2	450	0,18	700	B82422-T1151+
0,18	$\pm 10\%$	30	25,2	450	0,19	500	B82422-T1181+
0,22	$\triangleq K$	30	25,2	450	0,20	500	B82422-T1221+
0,27		30	25,2	450	0,21	500	B82422-T1271+
0,33		30	25,2	450	0,23	500	B82422-T1331+
0,39		30	25,2	450	0,25	400	B82422-T1391+
0,47		30	25,2	450	0,30	400	B82422-T1471+
0,56		30	25,2	450	0,31	300	B82422-T1561+
0,68		30	25,2	450	0,34	300	B82422-T1681+
0,82		30	25,2	450	0,38	300	B82422-T1821+
1,0		30	7,96	400	0,6	300	B82422-T1102+
1,2		30	7,96	390	0,7	250	B82422-T1122+
1,5		30	7,96	370	0,7	200	B82422-T1152+
1,8		30	7,96	350	0,8	140	B82422-T1182+
2,2		30	7,96	320	0,8	100	B82422-T1222+

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-T3100-K8


**Characteristics and ordering codes (continued)**

$L_R$ $\mu\text{H}$	Tolerance <sup>1)</sup>	$Q_{\min}$	$f_L; f_Q$ MHz	$I_R$ mA	$R_{\max}$ $\Omega$	$f_{\text{res, min}}$ MHz	Ordering code <sup>2)</sup> ( $\varnothing$ 180-mm reel)
Core material: ferrite							
2,7	$\pm 5\%$	30	7,96	290	0,9	70	B82422-T1272-+
3,3	$\triangle$	30	7,96	260	1,2	60	B82422-T1332-+
3,9	$\pm 10\%$	30	7,96	250	1,3	60	B82422-T1392-+
4,7	$\triangle$ K	30	7,96	220	1,5	50	B82422-T1472-+
5,6		27	7,96	200	1,6	45	B82422-T1562-+
6,8		27	7,96	180	1,8	40	B82422-T1682-+
8,2		27	7,96	170	2,0	35	B82422-T1822-+
10		27	2,52	150	2,1	30	B82422-T1103-+
12		27	2,52	140	2,5	25	B82422-T1123-+
15		27	2,52	130	2,8	20	B82422-T1153-+
18		27	2,52	120	3,0	20	B82422-T1183-+
22		27	2,52	110	3,5	20	B82422-T1223-+
27		27	2,52	80	4,5	20	B82422-T1273-+
33		27	2,52	70	5,6	17	B82422-T1333-+
39		27	2,52	65	6,4	16	B82422-T1393-+
47		27	2,52	60	7,0	15	B82422-T1473-+
56		27	2,52	60	8,0	12	B82422-T1563-+
68		27	2,52	60	9,0	9	B82422-T1683-+
82		25	2,52	60	10	9	B82422-T1823-+
100		20	0,796	60	11	8	B82422-T1104-+
120		20	0,796	60	12	8	B82422-T1124-+
150		20	0,796	50	17	7	B82422-T1154-+
180		20	0,796	50	18	7	B82422-T1184-+
220		20	0,796	45	22	6	B82422-T1224-+
270		20	0,796	40	28	5	B82422-T1274-+
330		20	0,796	40	34	4	B82422-T1334-+

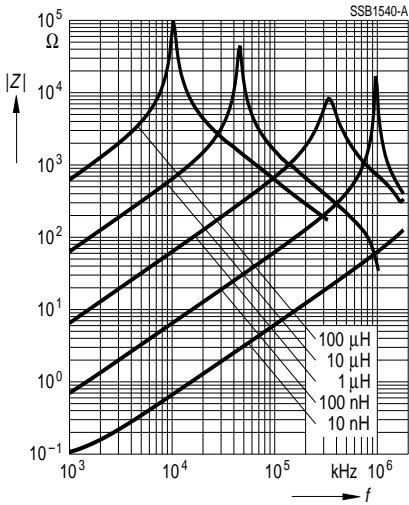
1) Closer tolerances and special versions upon request.

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

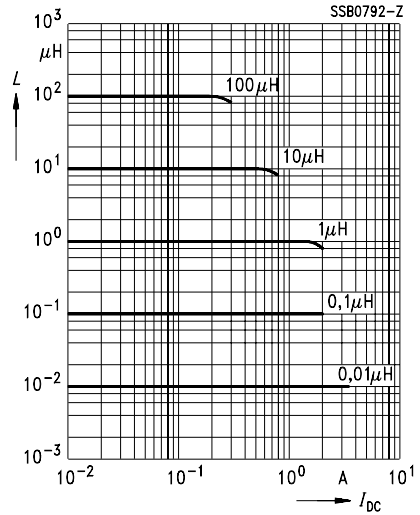
For reel size  $\varnothing$  330 mm append code number »8«. Example: B82422-T1272-K8



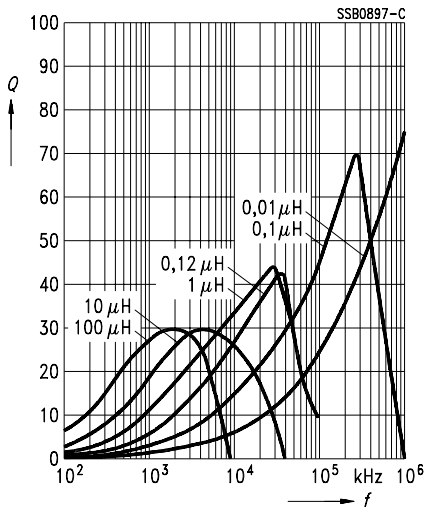
Impedance  $|Z|$   
versus frequency  $f$   
measured with impedance analyzer  
HP 4291A



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  $T_A$

