

### High-current version

Size 1210 (EIA) or 3225 (IEC)

Rated inductance 1 to 100  $\mu$ H

Rated current 90 to 650 mA



### Construction

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

### Features

- Very high current handling capability
- Suitable for reflow (IR and vapor phase) and wave soldering

### Applications

- Filtering of supply voltages, coupling, decoupling
- DC/DC converters
- 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 »H«,  
 $L$  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

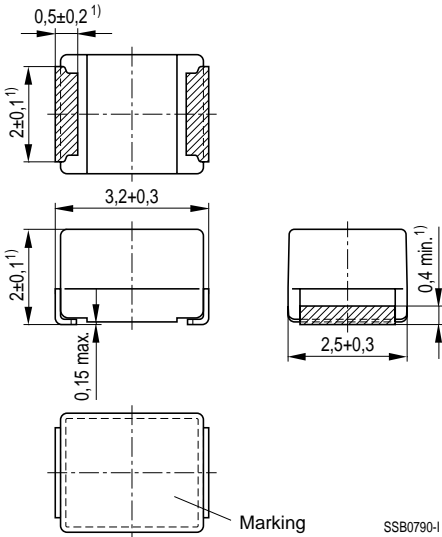
8-mm blister tape, wound on 180-mm or 330-mm  $\varnothing$  reel

For details on taping, packing and packing units [see page 153](#)

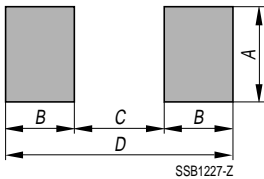
**General technical data**

Rated inductance $L_R$	Measured with impedance analyzer HP 4194A at frequency $f_L$
Q factor $Q_{\min}$	Measured with impedance analyzer HP 4194A at frequency $f_Q$
Rated current $I_R$	Maximum permissible dc with inductance decrease $\Delta L/L_0 \leq 10\%$ and temperature increase of $\leq 40\text{ K}$ at rated temperature of $85^\circ\text{C}$
Self-resonance frequency $f_{\text{res, min}}$	Measured with network analyzer HP 8753
DC resistance $R_{\text{max}}$	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**

$L_R$ $\mu\text{H}^{1)}$	Tolerance <sup>1)</sup>	$f_L$ MHz	$Q_{\min}$	$f_Q$ MHz	$I_R$ mA	$R_{\max}$ $\Omega$	$f_{\text{res, min}}$ MHz	Ordering code <sup>2)</sup> ( $\varnothing$ 180-mm reel)
1,0	$\pm 10\%$ $\triangleq K$	1	10	7,96	650	0,22	200	B82422-H1102-K100
1,5		1	10	7,96	600	0,27	120	B82422-H1152-K100
2,2		1	10	7,96	560	0,33	85	B82422-H1222-K100
3,3		1	10	7,96	500	0,42	60	B82422-H1332-K100
4,7		1	10	7,96	430	0,48	46	B82422-H1472-K100
6,8		1	10	7,96	380	0,75	38	B82422-H1682-K100
10		1	15	2,52	300	1,20	30	B82422-H1103-K100
15		0,1	15	2,52	260	1,50	26	B82422-H1153-K100
22		0,1	15	2,52	220	2,40	22	B82422-H1223-K100
27		0,1	15	2,52	200	3,00	20	B82422-H1273-K100
33		0,1	15	2,52	180	3,30	17	B82422-H1333-K100
39		0,1	15	2,52	160	4,10	15	B82422-H1393-K100
47		0,1	15	2,52	140	4,70	14	B82422-H1473-K100
68		0,1	15	2,52	110	7,70	9	B82422-H1683-K100
100		0,1	15	2,52	90	11,5	7	B82422-H1104-K100

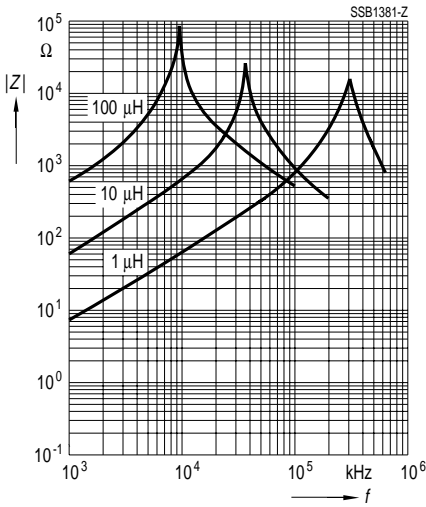
Further E12 ratings upon request.

1) Intermediate values and closer tolerances upon request.

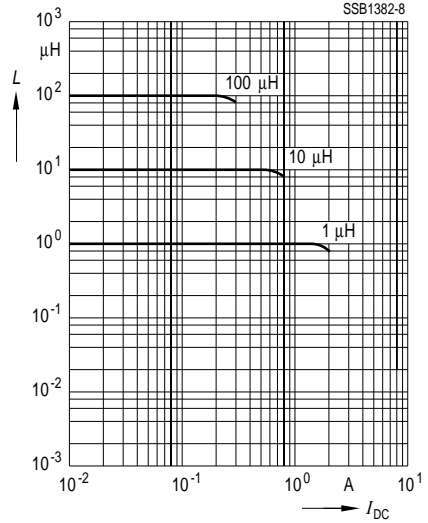
2) For reel size  $\varnothing$  330 mm append code number »8«. Example: B82422-H1102-K108



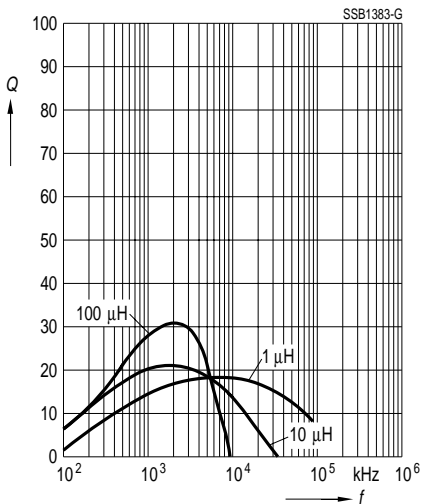
Impedance  $|Z|$   
versus frequency  $f$   
measured with impedance analyzer  
HP 4194A



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



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

