



**THE DATASHEET OF
B82422H1222K100**



High-current version
Size 1210 (EIA) or 3225 (IEC)
Rated inductance 1 to 100 μ 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 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 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

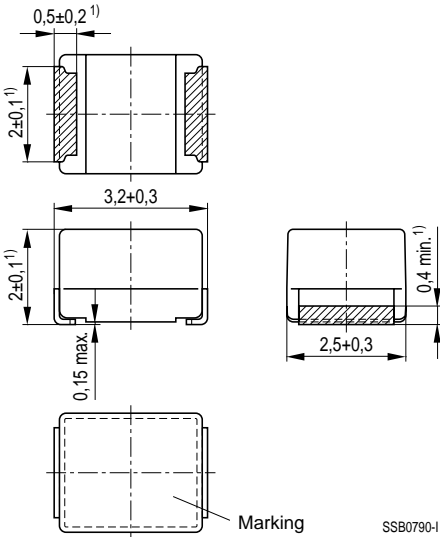
8-mm blister tape, wound on 180-mm or 330-mm \varnothing reel
For details on taping, packing and packing units [see page 153](#)

General technical data

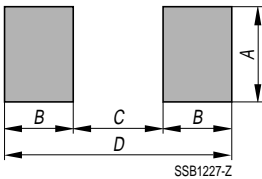
Rated inductance L_R	Measured with impedance analyzer HP 4194A at frequency f_L
Q factor Q_{\min}	Measured with impedance analyzer HP 4194A at frequency f_Q
Rated current I_R	Maximum permissible dc with inductance decrease $\Delta L/L_0 \leq 10\%$ and temperature increase of $\leq 40\text{ K}$ at rated temperature of 85°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 60062-2-58 (215 ± 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°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 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)
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

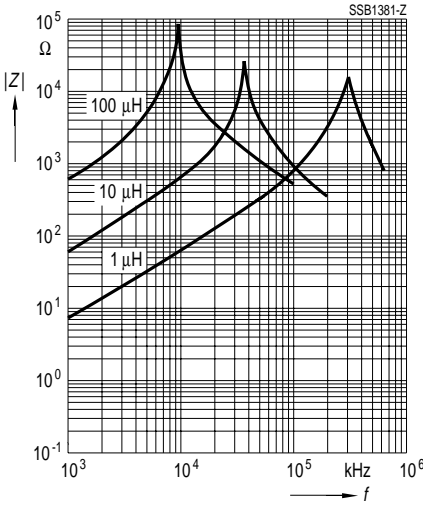
Further E12 ratings upon request.

1) Intermediate values and closer tolerances upon request.

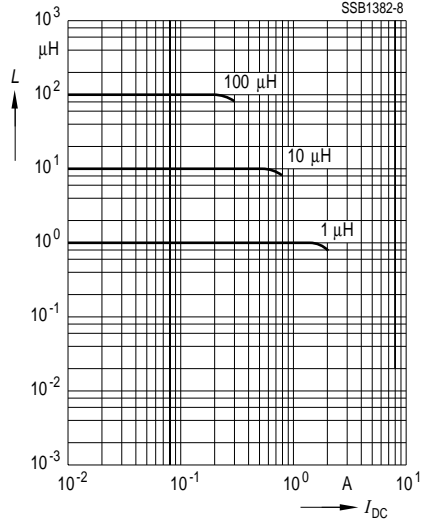
2) For reel size \varnothing 330 mm append code number »8«. Example: B82422-H1102-K108



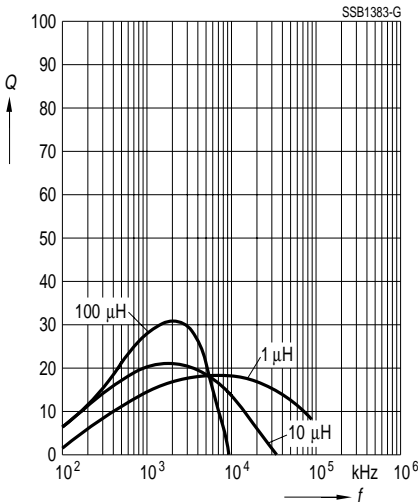
Impedance $|Z|$
versus frequency f
measured with impedance analyzer
HP 4194A



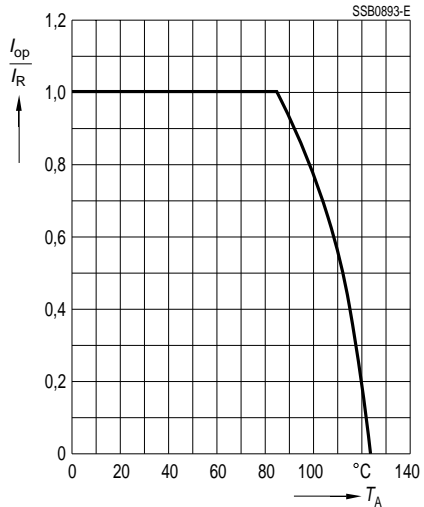
Inductance L
versus dc load current I_{DC}
measured with LCR meter
HP 4275A



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





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









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-  [EPCOS \(TDK\) Information](#)

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-  Shortage Management
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