



Siemens Matsushita Components

EMC

Components

RF Chokes **SMD**

High Current

B82432-H

Data Book Supplement

SIMID 03 (Siemens Miniature Inductors)

Rated inductance 1,0 bis 330 μ H

Rated current 0,11 to 1,10 A



Construction

- Size as per EIA standard: 1812
- Ferrite core
- Winding US- welded, flame- retardant encapsulation
- Temperature index of wire enamel: ≥ 180 °C

Features

- Very high current handling capability
- High Q factor
- High resonance frequency
- Suitable for reflow (IR and vapor phase) and wave soldering
- Different measuring frequencies for L and Q

Applications

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

Terminals

- Silver- plated
- Base material: CuSn6, 1–2 μ m Cu, 4–6 μ m Ag
- Suitable for soldering and conductive adhesion
- No leaching during wave soldering

Marking

Marking on component:

Manufacturer, "H" (high- current version)
 L value (in nH) and tolerance of L value (coded),
date of manufacture (coded)

Minimum marking on reel:

Manufacturer, part number, ordering code,
 L value and tolerance of L value,
quantity, date of packing

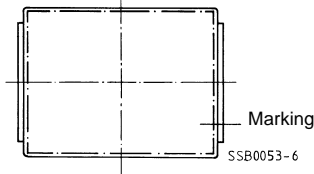
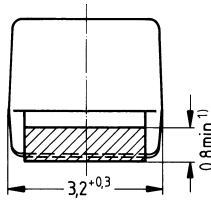
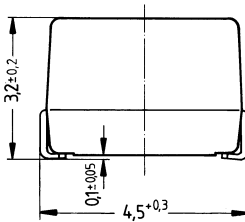
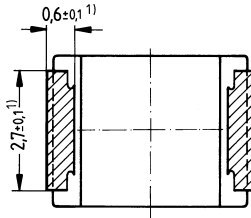
Delivery mode

12- mm blister tape wound on 330- mm \varnothing reel

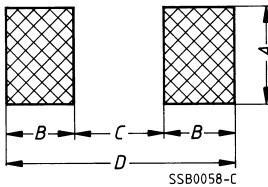
For details on taping, packing and packing units see data book "EMC components", page 433.

Dimensional drawing

EIA size 1812,
approx. weight 130 mg



PCB layout recommendation



Dimensions (mm)	A	B	C	D
Wave soldering	3,1	1,7	3,2	6,6
Reflow soldering	3,6	1,3	3,2	5,8

1) Soldering area, silver- plated

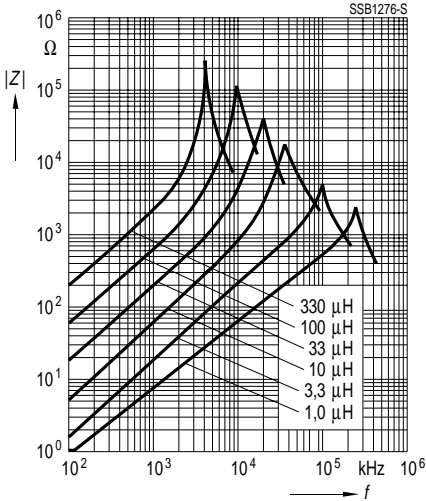
Characteristics and ordering codes

For further technical data see page 7

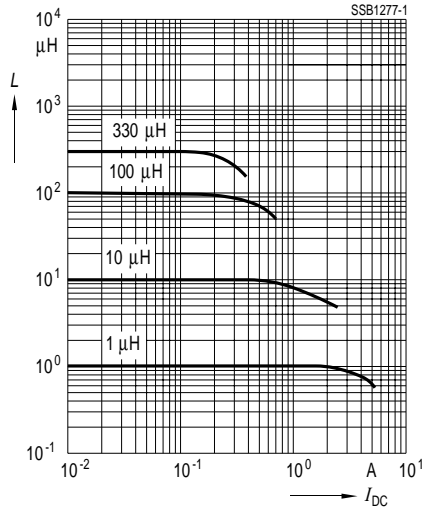
$L_R^{1)}$ μH	Tolerance	f_L MHz	Q_{\min}	f_Q MHz	I_R mA	R_{\max} Ω	$f_{\text{res, min}}$ MHz	Ordering code
1,0	$\pm 10\%$ $\hat{=} K$	1	20	7,96	1100	0,11	260	B82432- H1102- K
1,5		1	20	7,96	1000	0,14	175	B82432- H1152- K
2,2		1	20	7,96	900	0,18	95	B82432- H1222- K
3,3		1	20	7,96	820	0,22	80	B82432- H1332- K
4,7		1	20	7,96	740	0,27	40	B82432- H1472- K
6,8		1	20	7,96	660	0,35	36	B82432- H1682- K
10		1	25	2,52	600	0,50	25	B82432- H1103- K
15		0,1	25	2,52	480	0,70	20	B82432- H1153- K
22		0,1	25	2,52	430	0,90	18	B82432- H1223- K
33		0,1	25	2,52	350	1,4	15	B82432- H1333- K
47		0,1	25	2,52	310	1,9	11,5	B82432- H1473- K
68		0,1	25	2,52	230	2,6	10,0	B82432- H1683- K
100		0,1	25	0,796	180	4,0	8,0	B82432- H1104- K
150		0,1	25	0,796	150	6,1	6,5	B82432- H1154- K
220		0,1	25	0,796	130	7,5	4,5	B82432- H1224- K
330	0,1	25	0,796	110	11,0	3,5	B82432- H1334- K	

1) Additional ratings E 12 upon request

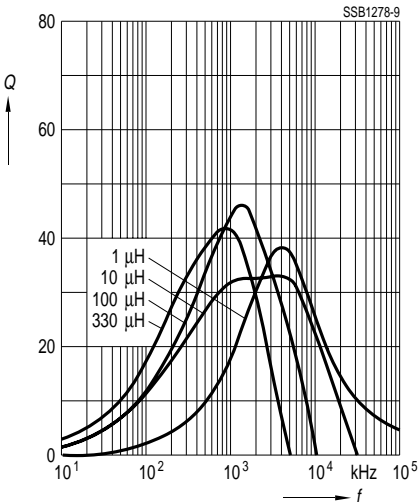
Impedance $|Z|$
versus frequency f
measured with impedance analyzer
HP 4191A / HP 4194A



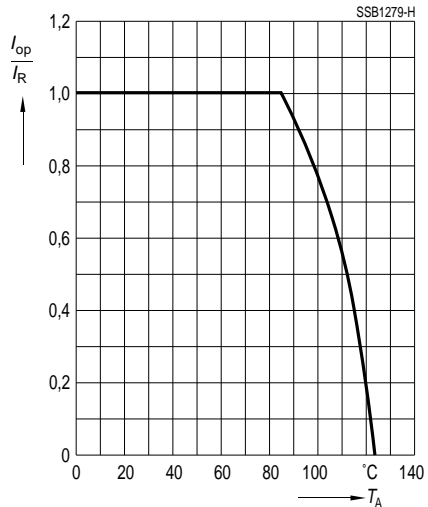
Inductance L
versus dc load I_{DC}
measured with LCR meter HP 4275A



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



Current derating I_{op}/I_R
versus ambient temperature T_A
(Rated temperature $T_R = 40^\circ\text{C}$)



General technical data

Rated inductance L_R	Measured at frequency f_L , with impedance analyzer HP 4194A
Q factor Q_{\min}	Measured at frequency f_Q , with impedance analyzer HP 4194A
Rated current I_N	Maximum permissible dc with an inductance decrease of $\Delta L/L_0 \leq 10\%$ and/or temperature increase of $\leq 40\text{ K}$ at rated temperature $T_R = 85^\circ\text{C}$ (see derating curve)
Self resonance frequency $f_{\text{res, min}}$	Measured with network analyzer HP 8753D
DC resistance R_{\max}	Measured at 20°C ambient temperature, Measuring current $< I_R$
Climatic category	In accordance with IEC 68- 1 55/125/56 ($-55^\circ\text{C}/+125^\circ\text{C}/56$ days damp heat test)
Solderability	$(215 \pm 3)^\circ\text{C}$, $(3 \pm 0,3)$ s Wetting of soldering area: $\geq 90\%$
Resistance to soldering heat	In accordance with IEC 68- 2- 20, test Tb 260°C , 10 s
Permissible PCB bending	2 mm (100 mm long standard PCB)

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