SIMID 03 (Siemens Miniature Inductors)
Rated inductance 1,0 to 1000 µH
Rated current 0,055 to 0,6 A

Construction

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

Features

- 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 µm Cu, 4–6 µm Ag
- 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)

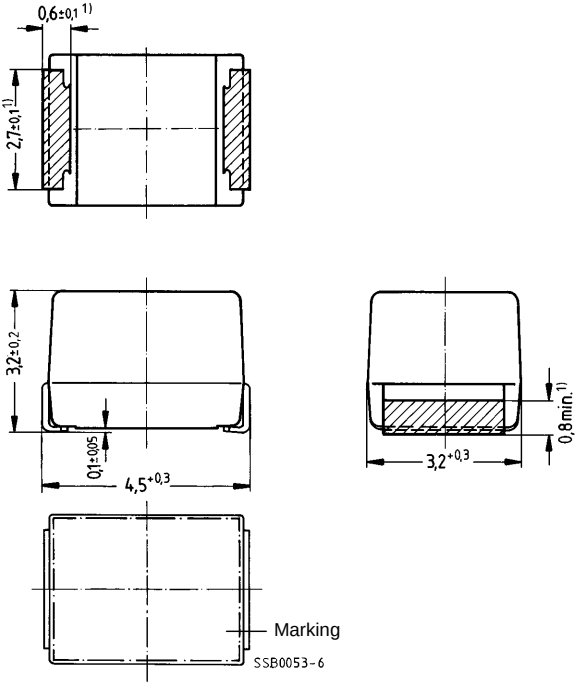
Minimum marking on reel:
Manufacturer, part number, ordering code,
L value and tolerance of *L* value,
quantity, date of packing

Delivery mode

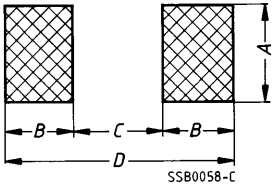
12-mm blister tape wound on 330-mm ∅ reel
For details on taping, packing and packing units see page 433.

Outline 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 54.

L_R µH	Tolerance[1]	f_L MHz	Q_{min}	f_Q MHz	I_R mA	R_{max} Ω	$f_{res,\ min}$ MHz	Ordering code[2]
1,0	± 10 % ≙ K	1	25	7,96	600	0,28	260	B82432-A1102-+
1,2		1	25	7,96	560	0,32	250	B82432-A1122-+
1,5	± 20 % ≙ M	1	25	7,96	535	0,35	230	B82432-A1152-+
1,8		1	25	7,96	490	0,41	210	B82432-A1182-+
2,2		1	30	7,96	480	0,43	190	B82432-A1222-+
2,7		1	30	7,96	450	0,49	170	B82432-A1272-+
3,3		1	30	7,96	425	0,55	155	B82432-A1332-+
3,9		1	30	7,96	410	0,59	145	B82432-A1392-+
4,7		1	30	7,96	390	0,65	110	B82432-A1472-+
5,6		1	30	7,96	375	0,71	100	B82432-A1562-+
6,8		1	30	7,96	360	0,78	75	B82432-A1682-+
8,2		1	30	7,96	330	0,92	23	B82432-A1822-+
10		1	45	2,52	320	0,98	22	B82432-A1103-+
12		0,1	45	2,52	300	1,10	19	B82432-A1123-+
15		0,1	45	2,52	280	1,25	17	B82432-A1153-+
18		0,1	45	2,52	270	1,35	15	B82432-A1183-+
22		0,1	45	2,52	260	1,45	13	B82432-A1223-+
27		0,1	45	2,52	245	1,65	12	B82432-A1273-+
33	± 5 % ≙ J	0,1	45	2,52	230	1,85	10,5	B82432-A1333-+
39		0,1	45	2,52	220	2,05	10,0	B82432-A1393-+
47	± 10 % ≙ K	0,1	40	2,52	210	2,3	9,5	B82432-A1473-+
56		0,1	40	2,52	200	2,5	9,0	B82432-A1563-+
68	± 20 % ≙ M	0,1	40	2,52	190	2,8	8,0	B82432-A1683-+
82		0,1	35	2,52	175	3,2	7,0	B82432-A1823-+
100		0,1	40	2,52	145	4,7	6,5	B82432-A1104-+
120		0,1	35	0,796	140	5,2	6,0	B82432-A1124-+
150		0,1	35	0,796	130	6,1	5,5	B82432-A1154-+
180		0,1	35	0,796	120	6,9	5,0	B82432-A1184-+
220		0,1	30	0,796	115	7,5	4,6	B82432-A1224-+

1) Closer tolerances and special versions upon request.
2) Replace the + by the code letter for the required inductance tolerance

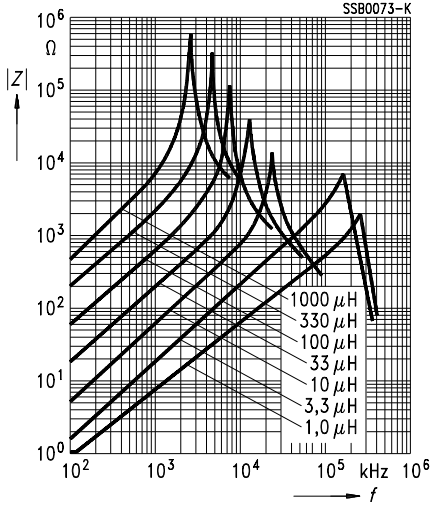
Characteristics and ordering codes

For further technical data see page 54.

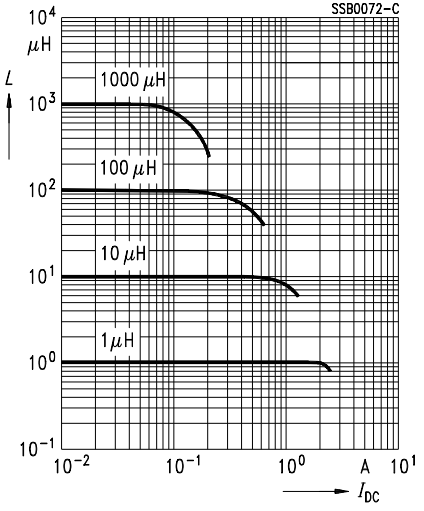
L_R µH	Tolerance[1]	f_L MHz	Q_{min}	f_Q MHz	I_R mA	R_{max} Ω	$f_{res, min}$ MHz	Ordering code[2]
270	± 5 % ≙ J	0,1	30	0,796	90	12,5	4,4	B82432-A1274-+
330		0,1	30	0,796	85	14,1	4,1	B82432-A1334-+
390	± 10 % ≙ K	0,1	35	0,796	80	15,3	3,8	B82432-A1394-+
470		0,1	35	0,796	75	17,5	3,5	B82432-A1474-+
560	± 20 % ≙ M	0,1	30	0,796	70	23,0	2,8	B82432-A1564-+
680		0,1	30	0,796	65	25,0	2,6	B82432-A1684-+
820		0,1	30	0,796	60	28,0	2,5	B82432-A1824-+
1000		0,1	30	0,796	55	32,0	2,3	B82432-A1105-+

1) Closer tolerances and special versions upon request.
2) Replace the + by the code letter for the required inductance tolerance

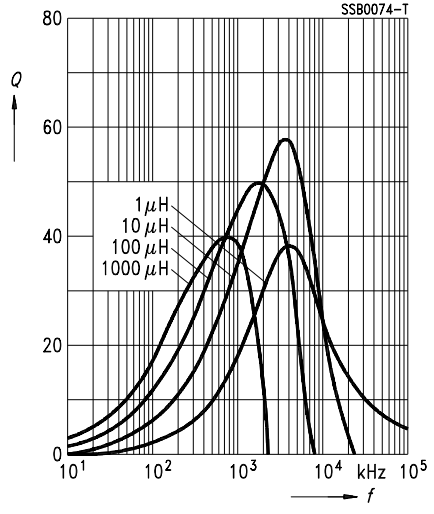
Impedance $|Z|$
versus frequency f
measured with impedance analyzer
HP 4191A / HP 4194A



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 °C)