



Siemens Matsushita Components

EMC

Components

SMT Inductors **SMD**
SIMID 1812
B82432-Z

Data Book Supplement

Vakatseite

Size 1812/4532 (inch/mm)
Rated inductance 0,22 to 1000 μ H
Rated current 0,04 to 0,7 A

Construction

- Ferrite core
- Laser soldered, molded epoxy encapsulation
- Temperature index of wire enamel: 155 °C

Features

- Extended induction range
- High Q factor
- 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

- Tinned
- Base material: phosphor bronze, 2–4 μ m Cu, $\geq 5 \mu$ m SnPb
- Suitable for soldering and conductive adhesion
- No leaching during wave soldering

Marking

Marking on component:
 L value (in μ H) and tolerance of L value (coded),

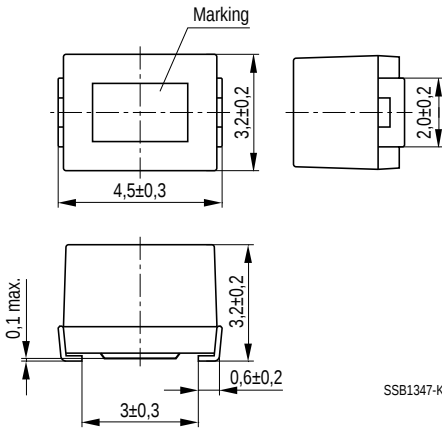
Minimum marking on reel:
Manufacturer, part number, ordering code,
 L value and tolerance of L value,
quantity, date of packing

Delivery mode

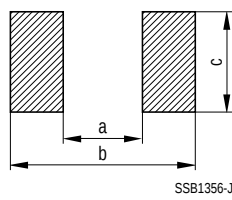
12- mm blister tape wound on 178- mm $\varnothing$ reel

Dimensional drawing

Size 1812/4532 (inch/mm),
approx. weight 130 mg



PCB layout recommendation



Dimensions (mm)	a	b	c
	2,4...2,6	5,5...6,0	2,0...3,0

Characteristics and ordering codes

For further technical data see page 8.

L_R μH	Tolerance	f_L MHz	$Q_{\min}$	f_Q MHz	I_R mA	$R_{\max}$ Ω	$f_{\text{res, min}}$ MHz	Ordering code ¹⁾
0,22	$\pm 20\%$ $\triangleq M$	1	30	25,2	700	0,30	230	B82432- Z1221- M
0,27		1	30	25,2	650	0,32	200	B82432- Z1271- M
0,33		1	30	25,2	630	0,35	180	B82432- Z1331- M
0,39		1	30	25,2	620	0,37	155	B82432- Z1391- M
0,47		1	30	25,2	580	0,40	135	B82432- Z1471- M
0,56		1	30	25,2	560	0,42	120	B82432- Z1561- M
0,68	$\pm 10\%$ $\triangleq K$	1	30	25,2	530	0,48	105	B82432- Z1681- M
0,82		1	30	25,2	500	0,50	90	B82432- Z1821- M
1,0		1	30	25,2	470	0,52	80	B82432- Z1102- +
1,2		1	30	25,2	460	0,55	70	B82432- Z1122- +
1,5		1	30	25,2	430	0,61	60	B82432- Z1152- +
1,8		1	30	7,96	410	0,61	50	B82432- Z1182- +
2,2	$\pm 5\%$ $\triangleq J$	1	30	7,96	410	0,61	45	B82432- Z1222- +
2,7		1	50	7,96	400	0,61	43	B82432- Z1272- +
3,3		1	50	7,96	380	0,66	39	B82432- Z1332- +
3,9		1	50	7,96	360	0,74	36	B82432- Z1392- +
4,7		1	50	5,0	350	0,81	33	B82432- Z1472- +
5,6		1	50	5,0	330	0,88	30	B82432- Z1562- +
6,8	$\pm 10\%$ $\triangleq K$	1	50	5,0	310	1,0	26	B82432- Z1682- +
8,2		1	50	5,0	250	1,6	24	B82432- Z1822- +
10		1	50	5,0	235	1,8	22	B82432- Z1103- +
12		1	50	5,0	225	1,9	20	B82432- Z1123- +
15		1	50	5,0	215	2,1	18	B82432- Z1153- +
18		1	50	2,52	205	2,3	16	B82432- Z1183- +
22	$\pm 10\%$ $\triangleq K$	1	50	2,52	195	2,6	15	B82432- Z1223- +
27		1	50	2,52	185	2,9	13	B82432- Z1273- +
33		1	50	2,52	175	3,1	12	B82432- Z1333- +
39		1	50	2,52	165	3,6	10	B82432- Z1393- +
47		1	50	2,52	130	4,2	9,7	B82432- Z1473- +
56		0,1	40	2,52	125	4,7	9,0	B82432- Z1563- +
68	$\pm 10\%$ $\triangleq K$	0,1	40	2,52	115	5,3	8,2	B82432- Z1683- +
82		0,1	40	2,52	110	5,9	7,5	B82432- Z1823- +
100		0,1	40	2,52	105	8,8	6,7	B82432- Z1104- +

1) Replace the + by the code letter for the inductance tolerance.

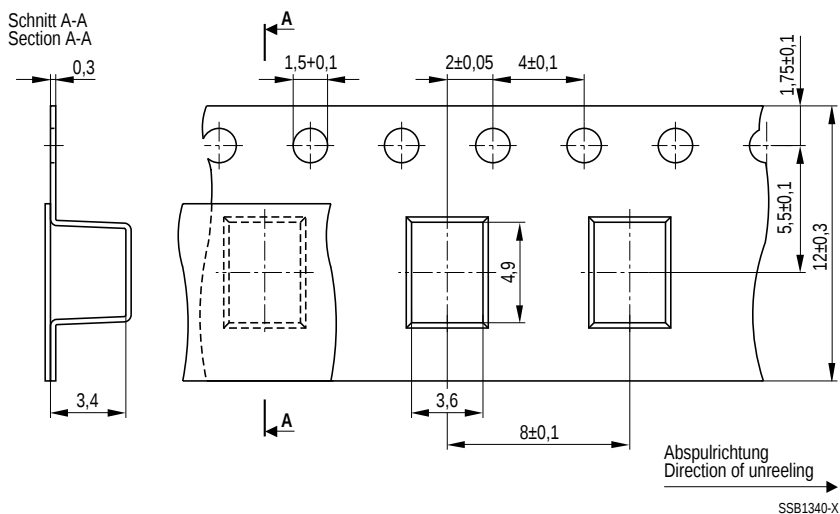
Characteristics and ordering codes

For further technical data see page 8.

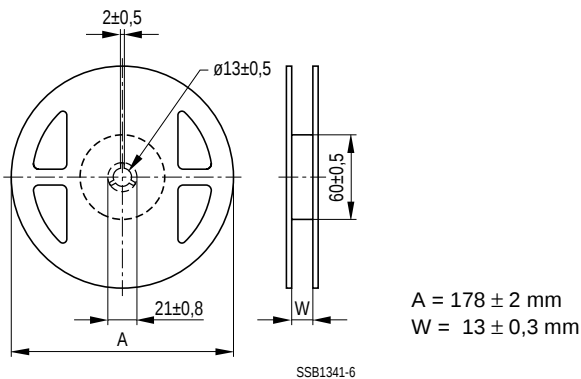
L_R μH	Tolerance	f_L MHz	$Q_{\min}$	f_Q MHz	I_R mA	$R_{\max}$ Ω	$f_{\text{res, min}}$ MHz	Ordering code ¹⁾
120	$\pm 5\%$ $\triangleq \text{J}$	0,1	40	1,5	100	10	6,1	B82432- Z1124- +
150		0,1	40	1,5	95	11	5,5	B82432- Z1154- +
180		0,1	40	1,5	85	13	5,1	B82432- Z1184- +
220	$\pm 10\%$ $\triangleq \text{K}$	0,1	40	0,796	85	13	4,5	B82432- Z1224- +
270		0,1	40	0,796	80	14	4,1	B82432- Z1274- +
330		0,1	40	0,796	75	16	3,7	B82432- Z1334- +
390		0,1	40	0,796	70	19	3,3	B82432- Z1394- +
470		0,1	30	0,796	55	31	3,3	B82432- Z1474- +
560		0,1	30	0,796	50	35	2,7	B82432- Z1564- +
680		0,1	30	0,796	50	39	2,5	B82432- Z1684- +
820		0,1	30	0,796	45	45	2,4	B82432- Z1824- +
1000		0,1	30	0,796	40	53	2,1	B82432- Z1105- +

1) Replace the + by the code letter for the inductance tolerance.

Taping



Packing



Packing unit: 500 pcs. per reel

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_R	Maximum permissible dc with an inductance decrease of $\Delta L/L_0 \leq 10 \%$ and/or temperature increase of $\leq 20 \text{ K}$ at rated temperature $T_R = 85^\circ\text{C}$
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 20/085/56 ($-20^\circ\text{C}/+85^\circ\text{C}/56$ days damp heat test)
Solderability	$(230 \pm 5)^\circ\text{C}$, $(3 \pm 0,5) \text{ s}$ 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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