SMD

Size 0603 (EIA) and/or 1608 (IEC)
Rated inductance 1,0 to 220 nH
Rated current 70 to 500 mA

Construction

- Copper-plated ceramic core
- Laser-cut winding, epoxy-coated

Features

- High resonance frequency
- Free of polarization effect
- Close inductance tolerance
- High mechanical stability
- Suitable for reflow (IR and vapor phase) and wave soldering

Applications

Resonant circuits, impedance matching for

- Mobile phones
- DECT systems
- Keyless entry
- GPS (Global Positioning System)
- Video cameras

Terminals

- Electro-plated, 2 µm Ni, 5 µm Sn90Pb10
- Base material Al_2O_3 ceramic with Cu layer

Marking

No marking on component

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 or cardboard tape, wound on 178-mm ∅ reel
For details on taping, packing and packing units see page 151

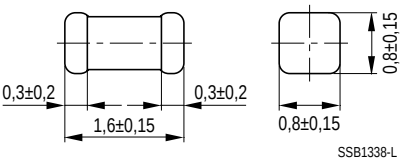
SMD

General technical data

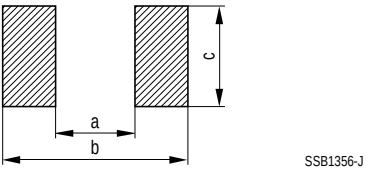
Rated inductance L_R	Measured with impedance analyzer HP 4291A at frequency f_L
Q factor Q_{min}, Q_{typ}	Measured with impedance analyzer HP 4291A, Q_{min} measured at frequency f_Q
Rated current I_R	Maximum permissible dc with a temperature increase of ≤ 15 K at rated temperature of 85 °C
Self-resonance frequency $f_{res, min}$	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 40/085/56 (– 40 °C/+ 85 °C/56 days damp heat test)
Solderability	In accordance with IEC 60062-2-58 (215 ± 3) °C, (3 ± 0,3) s Wetting of soldering area: ≥ 95 %
Resistance to soldering heat	In accordance with IEC 60068-2-20 260 °C, 10 s $\Delta L/L \leq \pm 5$ %; $\Delta Q/Q \leq \pm 20$ %
Permissible PCB bending	2 mm (100 mm long standard PCB)
Weight	Approx. 4 mg

SMD

Dimensional drawing



Layout recommendation



Dimensions (mm)

a	*b*	*c*
0,9 ± 0,1	2,3 ± 0,3	0,8 ± 0,1

SMD

Characteristics and ordering codes

L_R nH	Tolerance	Q_{min}	Q_{typ} (at 800 MHz)	f_L; f_Q MHz	I_R mA	R_{max} Ω	$f_{res,\ min}$ MHz	Ordering code[1)2)]
1,0	± 0,3 nH ≙ A	7	47	100	500	0,05	6000	B82496-A3109-+
1,2		7	47	100	500	0,06	6000	B82496-A3129-+
1,5	± 0,2 nH ≙ Z	8	47	100	500	0,07	6000	B82496-A3159-+
1,8		8	45	100	500	0,08	6000	B82496-A3189-+
2,2		8	35	100	500	0,09	6000	B82496-A3229-+
2,7		8	35	100	500	0,10	6000	B82496-A3279-+
3,3		9	35	100	500	0,12	5500	B82496-A3339-+
3,9	± 5 % ≙ J	9	36	100	450	0,15	5500	B82496-A3399-+
4,7		9	36	100	450	0,17	4800	B82496-A3479-+
5,6	± 0,2 nH ≙ Z	9	36	100	430	0,18	4600	B82496-A3569-+
6,8		9	36	100	430	0,20	3550	B82496-A3689-+
8,2		9	36	100	400	0,28	3500	B82496-A3829-+
10	± 5 % ≙ J	10	37	100	400	0,32	2800	B82496-A3100-+
12		10	37	100	400	0,35	2800	B82496-A3120-+
15	± 2 % ≙ G	10	38	100	350	0,41	2500	B82496-A3150-+
18		10	39	100	350	0,45	2300	B82496-A3180-+
22		10	40	100	300	0,50	2000	B82496-A3220-+
27		10	41	100	300	0,55	2000	B82496-A3270-+
33		10	40	100	300	0,60	1800	B82496-A3330-+
39		11	39	100	300	0,80	1800	B82496-A3390-+
47		11	38	100	250	0,95	1800	B82496-A3470-+
56		12	35	100	250	1,2	1800	B82496-A3560-+
68		12	35	100	250	1,3	1500	B82496-A3680-+
82		12	33	100	250	1,5	1500	B82496-A3820-+
100		12	30	100	200	1,8	1300	B82496-A3101-+
120		5	25	25,2	130	3,0	1200	B82496-A3121-+
150		5	22	25,2	100	4,5	1100	B82496-A3151-+
180		4	20	25,2	80	6,5	1000	B82496-A3181-+
220		4	—	25,2	70	7,5	900	B82496-A3221-+

1) Replace the + by the code letter for the required inductance tolerance (see table).
2) Ordering code for blister tape. For cardboard tape append code number »20«. Example: B82496-A3109-A20