



**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  $\mu\text{m}$  Ni, 5  $\mu\text{m}$  Sn90Pb10
- Base material  $\text{Al}_2\text{O}_3$  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

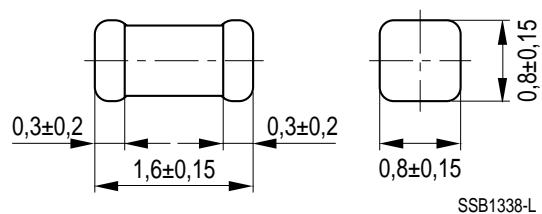
8-mm blister or cardboard tape, wound on 178-mm  $\varnothing$  reel

For details on taping, packing and packing units [see page 151](#)

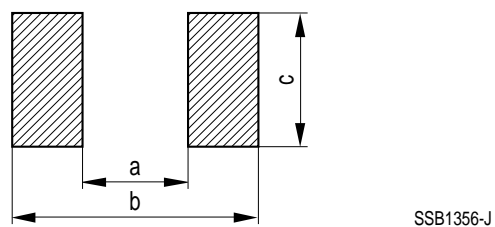
**General technical data**

Rated inductance $L_R$	Measured with impedance analyzer HP 4291A at frequency $f_L$
Q factor $Q_{\min}$ , $Q_{\text{typ}}$	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 $\leq 15$ K at rated temperature of $85^\circ\text{C}$
Self-resonance frequency $f_{\text{res, min}}$	Measured with network analyzer HP 8753
DC resistance $R_{\text{max}}$	Measured at $20^\circ\text{C}$ ambient temperature, measuring current $< I_R$
Climatic category	In accordance with IEC 60068-1 40/085/56 ( $-40^\circ\text{C}/+85^\circ\text{C}/56$ days damp heat test)
Solderability	In accordance with IEC 60062-2-58 ( $215 \pm 3^\circ\text{C}$ , $(3 \pm 0,3)$ s) Wetting of soldering area: $\geq 95\%$
Resistance to soldering heat	In accordance with IEC 60068-2-20 $260^\circ\text{C}$ , 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

**Dimensional drawing**



**Layout recommendation**



**Dimensions (mm)**

<i>a</i>	<i>b</i>	<i>c</i>
0,9 ± 0,1	2,3 ± 0,3	0,8 ± 0,1

**Characteristics and ordering codes**

$L_R$ nH	Tolerance	$Q_{\min}$	$Q_{\text{typ}}$ (at 800 MHz)	$f_L; f_Q$ MHz	$I_R$ mA	$R_{\max}$ $\Omega$	$f_{\text{res, min}}$ MHz	Ordering code <sup>1)2)</sup>
1,0	$\pm 0,3$ nH	7	47	100	500	0,05	6000	B82496-A3109++
1,2	$\triangleq A$	7	47	100	500	0,06	6000	B82496-A3129++
1,5	$\pm 0,2$ nH	8	47	100	500	0,07	6000	B82496-A3159++
1,8	$\triangleq Z$	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	$\pm 5$ %	9	36	100	450	0,15	5500	B82496-A3399++
4,7	$\triangleq J$	9	36	100	450	0,17	4800	B82496-A3479++
5,6	$\pm 0,2$ nH	9	36	100	430	0,18	4600	B82496-A3569++
6,8	$\triangleq Z$	9	36	100	430	0,20	3550	B82496-A3689++
8,2		9	36	100	400	0,28	3500	B82496-A3829++
10	$\pm 5$ %	10	37	100	400	0,32	2800	B82496-A3100++
12	$\triangleq J$	10	37	100	400	0,35	2800	B82496-A3120++
15	$\pm 2$ %	10	38	100	350	0,41	2500	B82496-A3150++
18	$\triangleq G$	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