



Siemens Matsushita Components

EMC

Components

SMT Inductors **SMD**
SIMID 0603
B82496-A

Data Book Supplement

Vakatseite

Size 0603/1608 (inch/mm))
Rated inductance 1,0 to 220 nH
Rated current 0,07 to 0,5 A



Construction

- Copper plated ceramic core
- Laser cutted
- Laquer coated

Features

- Extended induction range
- High resonance frequency
- Suitable for reflow (IR and vapor phase) and wave soldering
- Same measuring frequencies for *L* and *Q*

Applications

- Filtering of supply voltages, coupling, decoupling
- Antenna amplifiers
- Video cameras
- Mobile phones

Terminals

- Tin coated over nickel barrier plating
- No leaching during wave soldering

Marking

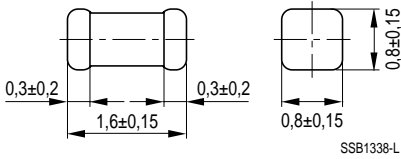
Minimum marking on reel:
Manufacturer, part number, ordering code,
L value and tolerance of *L* value,
quantity, date of packing

Delivery mode

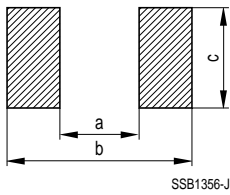
8- mm blister or cardboard tape
wound on 178- mm \varnothing reel

Dimensional drawing

Size 0603/1608 (inch/mm),
approx. weight 4 mg



PCB layout recommendation



Dimensions (mm)	a	b	c
	0,8...1,0	2,0...2,6	0,7...0,9

Characteristics and ordering codes

For further technical data see page 7.

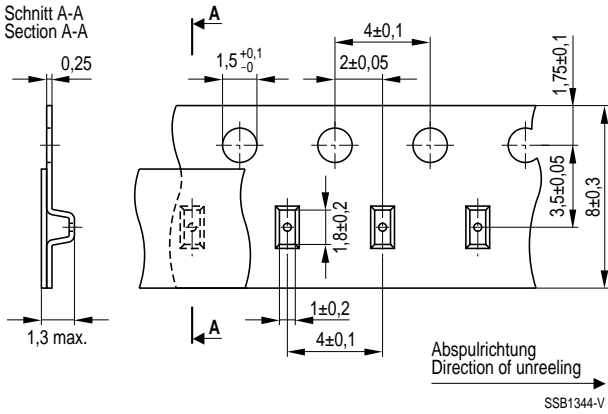
L_R nH	Tolerance ¹⁾	Q_{min}	$f_L; f_Q$ MHz	I_R mA	R_{max} Ω	$f_{res, min}$ MHz	Ordering code ²⁾
1,0	$\pm 0,3$ nH $\hat{=} A$	7	100	500	0,05	6000	B82496- A3109- A
1,2		7	100	500	0,06	6000	B82496- A3129- A
1,5		8	100	500	0,07	6000	B82496- A3159- A
1,8		8	100	500	0,08	6000	B82496- A3189- A
2,2		8	100	500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

1) Closer tolerances upon request

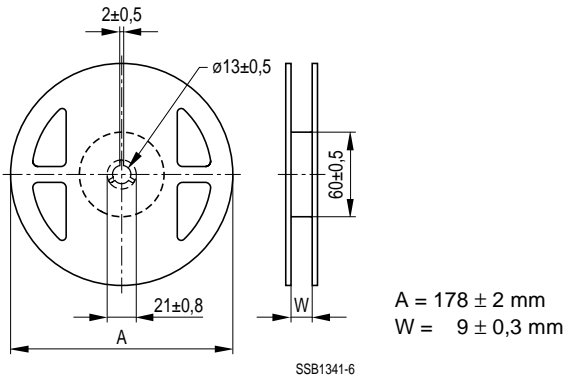
2) Ordering code for blister tape.

For cardboard tape append the code number "020", E. g.: B82496- A3109- A020

Taping



Packing



Packing unit: 3000 pcs. per reel

General technical data

Rated inductance L_R	Measured at frequency f_L , with RF LCR meter HP 4286A and test fixture HP 16193A
Q factor Q_{\min}	Measured at frequency f_Q , with RF LCR meter HP 4286A and test fixture HP 16193A
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 40/085/56 ($-40^\circ\text{C}/+85^\circ\text{C}/56$ days damp heat test)

Soldering

According to CECC 00802

Wave soldering	Maximum 260°C , 5 s
Infrared soldering	Maximum 250°C , 5 s temperature/time profile $>215^\circ\text{C}$, max. 60 s
Vapour- phase soldering	Maximum $(215 \pm 5)^\circ\text{C}$, 20 to 60 s
Solderability	$(230 \pm 5)^\circ\text{C}$, $(3 \pm 0,5)$ s Wetting of soldering area: $\geq 90\%$
Resistance to soldering heat	$(260 \pm 5)^\circ\text{C}$, $(10 \pm 0,5)$ s after 5 min preheating at $(120 \pm 10)^\circ\text{C}$ $ \Delta L/L \leq 5\%$, $ \Delta Q/Q \leq 20\%$
Permissible PCB bending	2 mm (100 mm long standard PCB)

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