



Siemens Matsushita Components

EMC

Components

SMT Inductors 
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

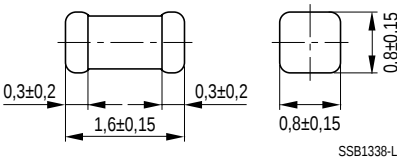
Minimum marking on reel:
Manufacturer, part number, ordering code,
 L value and tolerance of L value,
quantity, date of packing

Delivery mode

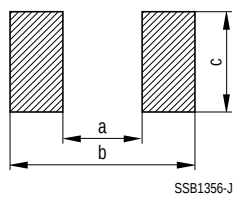
8- mm blister or cardboard tape
wound on 178- mm $\varnothing$ reel

Dimensional drawing

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



PCB layout recommendation



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

Characteristics and ordering codes

For further technical data see page 7.

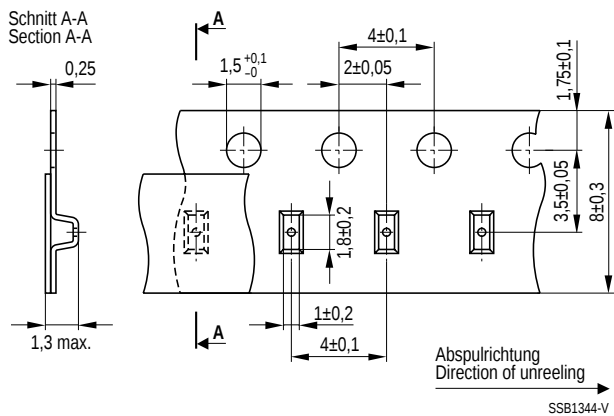
L_R nH	Toler- ance ¹⁾	Q_{min}	f_L, f_Q MHz	I_R mA	R_{max} Ω	$f_{res, min}$ MHz	Ordering code ²⁾
1,0	$\pm 0,3 \text{ nH}$ $\hat{=} A$	7	100	500	0,05	6000	B82496- A3109- A
1,2		7	100	500	0,06	6000	B82496- A3129- A
1,5		8	100	500	0,07	6000	B82496- A3159- A
1,8		8	100	500	0,08	6000	B82496- A3189- A
2,2		8	100	500	0,09	6000	B82496- A3229- A
2,7		8	100	500	0,10	6000	B82496- A3279- A
3,3		9	100	500	0,12	5500	B82496- A3339- A
3,9	$\pm 5 \%$ $\hat{=} J$	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

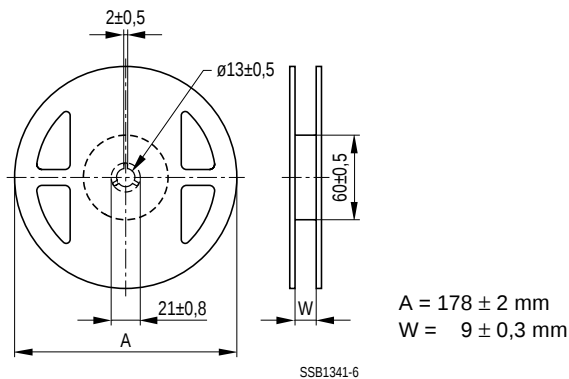
2) Ordering code for blister tape.

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	$(230 \pm 5)^\circ\text{C}$, $(3 \pm 0,5) \text{ s}$ Wetting of soldering area: $\geq 90 \%$
Resistance to soldering heat	$(260 \pm 5)^\circ\text{C}$, $(10 \pm 0,5) \text{ s}$ 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)

Published by Siemens Matsushita Components GmbH & Co. KG
Marketing Kommunikation, Postfach 80 17 09, D- 81617 München

© Siemens Matsushita Components 1998. All Rights Reserved.

As far as patents or other rights of third parties are concerned, liability is only assumed for components per se, not for applications, processes and circuits implemented within components or assemblies.

The information describes the type of component and shall not be considered as assured characteristics.

Terms of delivery and rights to change design reserved.

This brochure replaces the previous edition.

For questions on technology, prices and delivery please contact the Sales Offices of Siemens AG, Passive Components and Electron Tubes Group, in the Federal Republic of Germany or the international Siemens Companies and Representatives.

Due to technical requirements components may contain dangerous substances. For information on the type in question please also contact one of our Sales Offices.