Siemens Matsushita Components

EMC Components

RF Chokes SMD
B82498-B

Data Book Supplement

Preliminary data

SIMID 08 (Siemens Miniature Inductors)
Rated inductance 2,2 to 560 nH
Rated current 0,1 to 0,6 A

Construction

- Size as per EIA standard: 0805
- Cubic coil with ceramic core
- Plastic-sealed winding
- Winding ends welded to contact areas
- Temperature index of wire enamel: 180 °C

Features

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

Applications

- Antenna amplifiers
- Mobile phones
- Video cameras

Terminals

- Solderable metallized contact areas of Ag/Pd/Pt

Marking

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

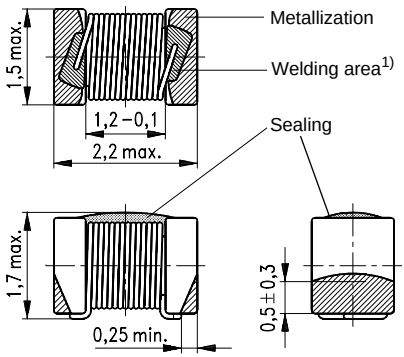
Delivery mode

8-mm blister tape wound on 180-mm ∅ reel
For details on taping, packing and packing units refer to data book EMC Components, page 433.

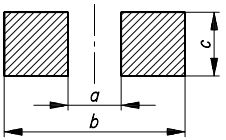
Preliminary data

Outline drawing

EIA size 0805,
approx. weight 8,5 mg



PCB layout recommendation



Dimensions (mm)

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

1) This area (30 % of seating area) should not be used to assess solderability.

Preliminary data

Characteristics and ordering codes

For further technical data see page 5.

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]
2,2	± 10 % ≙ K	25	250	600	0,05	6000	B82498-B3229-M
4,7		30	250	600	0,06	6000	B82498-B3479-M
6,8	± 20% ≙ M	30	250	600	0,06	5500	B82498-B3689-+
8,2		35	250	600	0,07	5000	B82498-B3829-M
10	± 5% ≙ J	40	250	600	0,07	4500	B82498-B3100-+
12		40	250	600	0,07	4100	B82498-B3120-+
15	± 10% ≙ K	40	250	600	0,08	3700	B82498-B3150-+
18		45	250	600	0,09	3300	B82498-B3180-+
22	± 20% ≙ M	45	250	500	0,10	2700	B82498-B3220-+
27		50	250	500	0,11	2600	B82498-B3270-+
33		50	250	500	0,12	2200	B82498-B3330-+
39		50	250	500	0,13	2200	B82498-B3390-+
47		45	200	500	0,15	2100	B82498-B3470-+
56		45	200	500	0,17	1800	B82498-B3560-+
68		45	200	500	0,20	1700	B82498-B3680-+
82		40	150	400	0,25	1600	B82498-B3820-+
100		40	150	400	0,30	1350	B82498-B3101-+
120		40	150	350	0,40	1300	B82498-B3121-+
150		35	100	340	0,42	1250	B82498-B3151-+
180		35	100	310	0,52	1150	B82498-B3181-+
220		35	100	270	0,66	1100	B82498-B3221-+
270		35	100	230	0,95	900	B82498-B3271-+
330		35	100	230	0,90	900	B82498-B3331-+
390		35	100	170	1,7	800	B82498-B3391-+
470		35	100	150	2,1	750	B82498-B3471-+
560		35	100	100	2,8	650	B82498-B3561-+

1) Closer tolerances upon request.
2) Replace the + by the code letter for the required inductance tolerance.

Preliminary data

General technical data

Rated inductance L_R	Measured at frequency f_L, with impedance analyzer HP 4286 A Measurement recorded with HP 16193 A
Q factor Q_{min}	Measured at frequeny f_Q, with impedance analyzer HP 4286 A Measurement recorded with HP 16193 A
Rated current I_R	Maximum permissible dc with an inductance decrease of $\Delta L/L_0 \leq 10$ % and/or a temperature increase of ≤ 20 K referred to 85 °C ambient temperature
Self-resonance frequency $f_{res, min}$	Measured with network analyzer HP 8753
DC resistance R_{max} or R_{typ}	Measured at 20 °C ambient temperature, measuring current < I_R
Climatic category	In accordance with IEC 68-1 55/125/56 (– 55 °C/+ 125 °C/56 days damp heat test)
Permissible soldering procedures	Wave and reflow soldering (IR and vapor phase) temperature and time curves in accordance with CECC 00 802
Solderability	Wetting of soldering area: ≥ 90 %
Resistance to soldering heat	$\lvert\Delta L/L\rvert \leq$ 5 % $\lvert\Delta Q/Q\rvert \leq$ 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

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