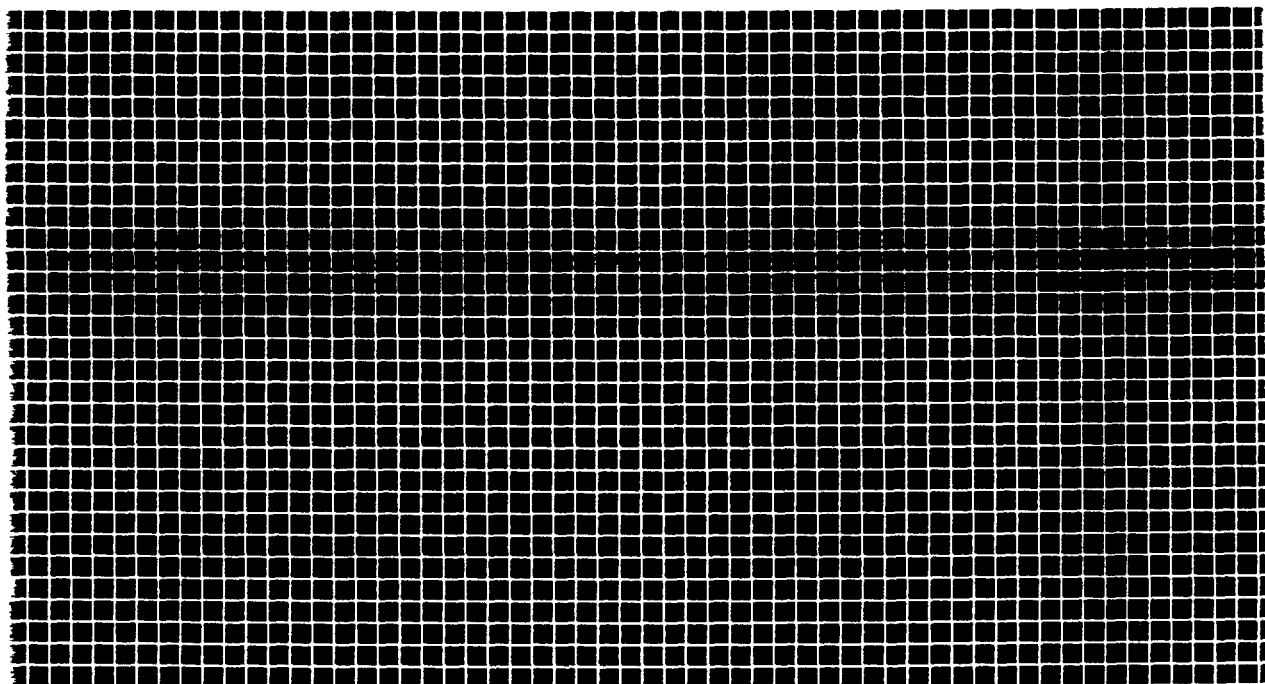


Siemens Matsushita Components



HF Chokes

B 82 422 



Data Book Supplement

Chip inductors for surface mounting

Rated current 0.065 to 0.8 A

SIMID 02 series with tinned terminals**Construction**

- Miniature chip chokes with flame-retardant encapsulation
- Core made of ceramic or ferrite material
- Wound with highly temperature-stable enamel copper wire; the winding ends are welded to the contact elements, which are glue-bonded to the face ends

Features

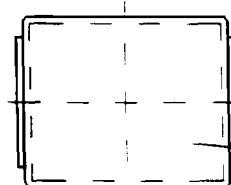
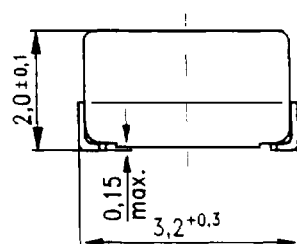
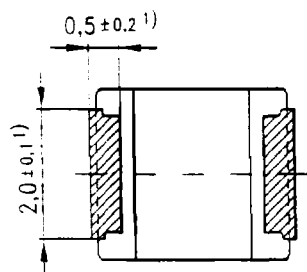
- Suitable for automatic placement
- Suitable for all soldering methods
- Supply on blister tape (reel packing)

Application examples

Use in HF circuits (e.g. tuners in car radios, TV sets, video recorders) as well as in mobile telephones and antenna amplifiers

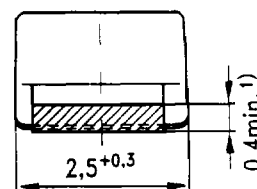
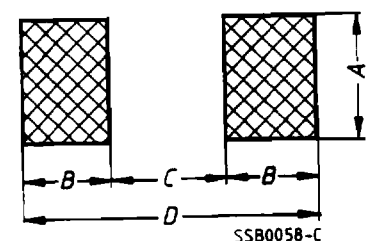
Approvals

to CECC and VG standard pending



SSB0790-I

Marking

1) Soldering area, tinned**Layout recommendation**

SSB0058-C

Dimensions (mm)	A	B	C	D
Wave soldering	2.3	1.60	2.1	5.3
Reflow soldering	2.7	1.15	2.1	4.4

Technical data

Dimensions $l \times b \times h$ (mm)	$3.2 \times 2.5 \times 2.0$
Size as per EIA standard	1210
Rated inductance	0.0082 μ H to 100 μ H measuring frequency 10 MHz for $L \leq 0.1 \mu$ H 1 MHz for 0.1μ H < $L \leq 10 \mu$ H 100 kHz for $L > 10 \mu$ H
Rated current	referred to 40 °C ambient temperature
DC resistance	measured at 20 °C
Quality	measured with impedance analyzer HP 4194 A
Resonance frequency	measured with scalar network analyzer ZAS from Rohde & Schwarz
IEC climatic category	55/125/56
Soldering methods	wave soldering, reflow soldering, vapor phase soldering
Solderability: 215 °C $\pm$ 3 °C, 3 $\pm$ 0.3 s	$\geq$ 95 % wetting of soldering area
Resistance to soldering heat analog to test Tb, IEC 68-2-20	260 °C, 10 s
Permissible bending of PCB	2 mm (100 mm long standard PCB)
Marking on component	S + M inductance in nH and tolerance
Weight	approx. 46 mg

Inductance	Tolerance	Q at meas. frequency		Rated current	DC resistance	Resonance frequency	Ordering code ¹⁾	Core material
L		Q _{min}	MHz	I _N	R _{max}	f _{min}	PU = 2000 pieces	
μH				mA	Ω	MHz		
0.0082		20	100	800	0.08	2500	B82422-A3829-+100	Cera-mics
0.010		20	100	750	0.09	2500	B82422-A3100-+100	
0.012		25	100	700	0.10	2500	B82422-A3120-+100	
0.015		27	100	640	0.12	2500	B82422-A3150-+100	
0.018		30	100	640	0.12	2500	B82422-A3180-+100	
0.022		30	100	600	0.14	2500	B82422-A3220-+100	
0.027		23	50	600	0.14	1850	B82422-A3270-+100	
0.033		20	50	540	0.17	1700	B82422-A3330-+100	
0.039		25	50	530	0.18	1450	B82422-A3390-+100	
0.047		26	50	510	0.19	1350	B82422-A3470-+100	
0.056	±10%	26	50	500	0.20	1200	B82422-A3560-+100	
0.068	or	27	50	480	0.21	1150	B82422-A3680-+100	
0.082	±20%	27	50	450	0.24	1050	B82422-A3820-+100	
0.10		25	50	440	0.26	1000	B82422-A3101-+100	
0.12		22	30	400	0.32	880	B82422-A3121-+100	
0.15		25	30	390	0.33	850	B82422-A3151-+100	
0.18		25	30	360	0.38	800	B82422-A3181-+100	
0.22		25	30	280	0.64	700	B82422-A3221-+100	
0.27		20	30	235	0.90	650	B82422-A3271-+100	
0.33		22	30	200	1.3	580	B82422-A3331-+100	
0.39		22	30	190	1.4	540	B82422-A3391-+100	
0.47		22	30	150	2.2	480	B82422-A3471-+100	
0.56		22	30	150	2.2	200	B82422-A3561-+100	
0.68		22	30	145	2.4	180	B82422-A3681-+100	
0.82		22	30	140	2.5	160	B82422-A3821-+100	

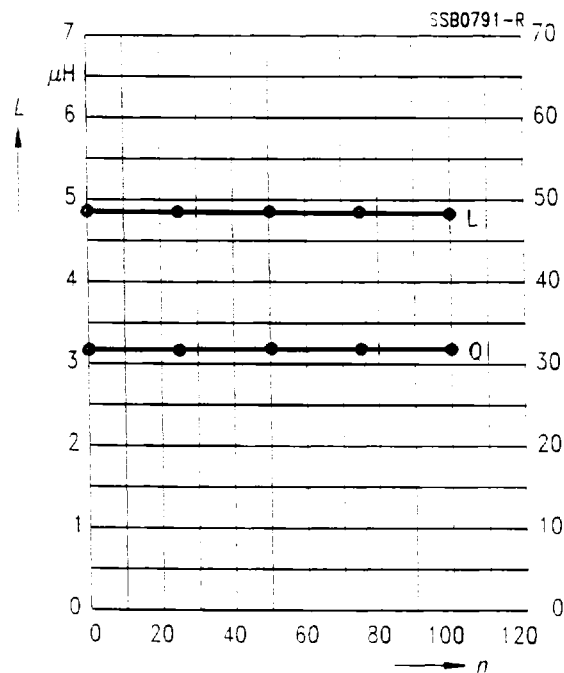
continued on page 4

1) Replace the + in the ordering code by the code letter for tolerance K = ± 10 % or M = ± 20 %.
Closer tolerances upon request.

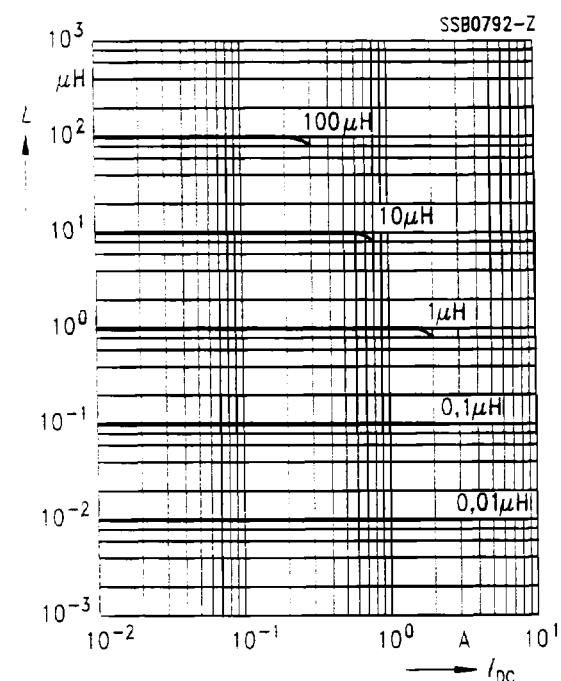
Inductance	Tolerance	Q at meas. frequency		Rated current	DC resistance	Resonance frequency	Ordering code ¹⁾	Core material
L μH		Q _{min}	MHz	I _N mA	R _{max} Ω	f _{min} MHz	PU = 2000 pieces	
1.0		20	7.96	380	0.34	320	B82422-A1102-+100	Ferrite
1.2		20	7.96	370	0.37	300	B82422-A1122-+100	
1.5		20	7.96	340	0.42	270	B82422-A1152-+100	
1.8		25	7.96	290	0.60	250	B82422-A1182-+100	
2.2		25	7.96	270	0.75	125	B82422-A1222-+100	
2.7		25	7.96	240	0.88	110	B82422-A1272-+100	
3.3		27	7.96	200	1.20	75	B82422-A1332-+100	
3.9		27	7.96	190	1.40	70	B82422-A1392-+100	
4.7		27	7.96	150	2.20	65	B82422-A1472-+100	
5.6	±10%	27	7.96	140	2.60	60	B82422-A1562-+100	
6.8	or	27	7.96	135	2.80	55	B82422-A1682-+100	
8.2	±20%	27	7.96	130	3.00	50	B82422-A1822-+100	
10		27	2.52	180	1.60	25	B82422-A1103-+100	
12		27	2.52	175	1.65	23	B82422-A1123-+100	
15		27	2.52	165	1.85	20	B82422-A1153-+100	
18		27	2.52	155	2.00	17	B82422-A1183-+100	
22		27	2.52	140	2.65	16	B82422-A1223-+100	
27		27	2.52	120	3.70	15	B82422-A1273-+100	
33		27	2.52	105	4.50	13	B82422-A1333-+100	
39		27	2.52	90	6.30	12	B82422-A1393-+100	
47		27	2.52	85	7.00	11	B82422-A1473-+100	
56		27	2.52	85	6.75	9	B82422-A1563-+100	
68		27	2.52	80	7.70	9	B82422-A1683-+100	
82		27	2.52	70	10.0	8	B82422-A1823-+100	
100		27	2.52	65	11.5	7	B82422-A1104-+100	

1) Replace the + in the ordering code by the code letter for tolerance K = ± 10 % or M = ± 20 %.
Closer tolerances upon request.

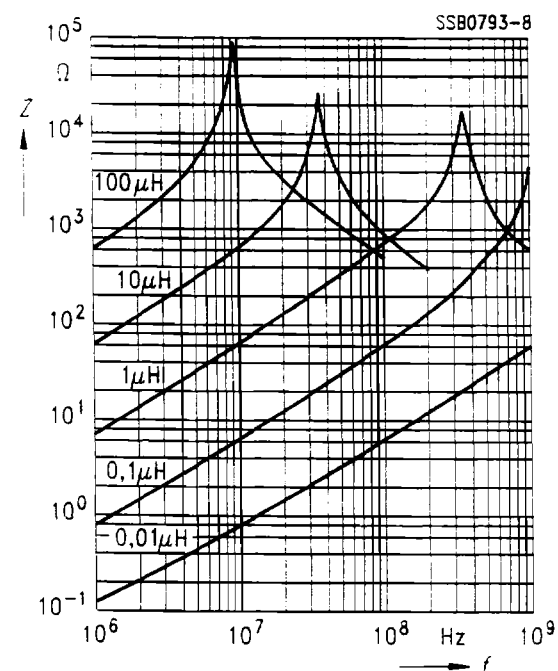
Inductance L and quality Q
versus number n of dip soldering
processes (240 °C, 5 s)



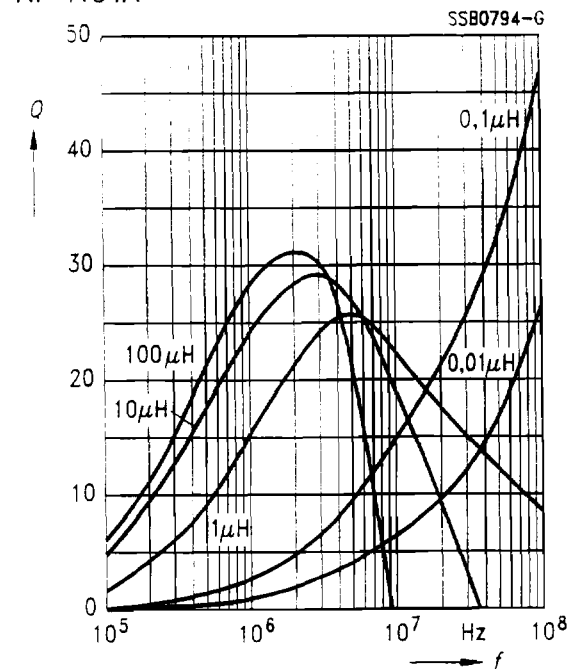
Inductance L
versus dc load I_{DC} ;
measured with LCR meter HP 4275A



Impedance Z
versus frequency f ;
measured with HF impedance analyzer
HP 4191A

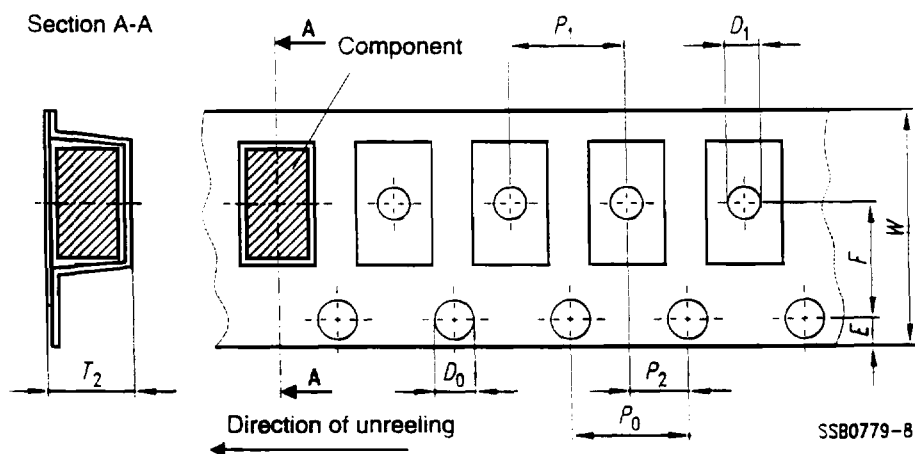


Quality Q
versus frequency f ;
measured with impedance analyzer
HP 4194A



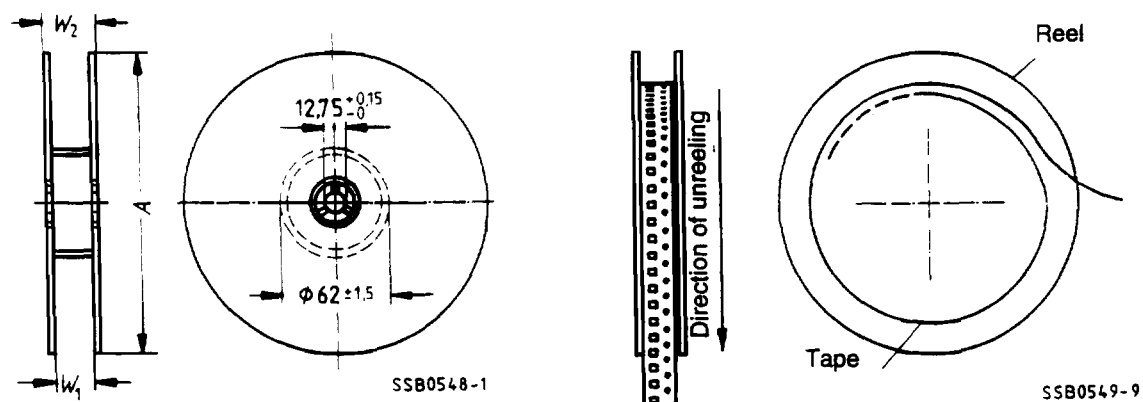
Tape packaging and packing

The chokes are supplied taped and reeled. Taping is in accordance with IEC 286-3.



Tape dimensions (mm)

W	D_0	D_1	P_0	P_1	P_2	E	F	T_2
8 ± 0.3	1.5 ± 0.1	1.0 ± 0.2	4 ± 0.1	4 ± 0.1	2 ± 0.05	1.75 ± 0.1	3.5 ± 0.5	≤ 2.6



Marking on reel: inductance and tolerance in clear text plus ordering code.

Reel dimensions (mm)

A	W_1	W_2
180^{+0}_{-2}	$8.4^{+1.5}_{-0}$	14.4 max.

Packing unit: 2000 pieces per reel

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

© Siemens Matsushita Components 1993. 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.