



Selection Guide

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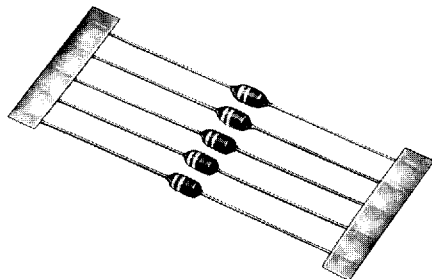
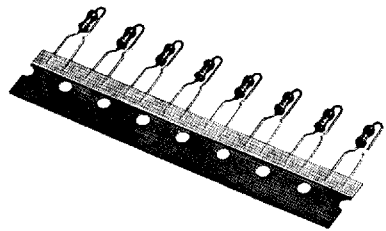
SIEMENS AKTIENGESELLSCHAFT 47E D



EMI suppression chokes
 HF chokes, SMD chip inductors

	Type Page	Rated current	Rated inductance
	SIMID 01 B82412 F 4	0.1 to 0.4 A	0.068 to 8.2 μ H
	SIMID 02 B82422 F 8	0.06 to 0.4 A	0.1 to 100 μ H

HF chokes, axial and unidirectional

	SBC B82141 F 12	0.055 to 0.725 A	1 to 1000 μ H
	MCC B78108-T B78148-T F 14	0.08 to 1.1 A	0.1 to 100 μ H
	BC B78108-S B78148-S F 16	0.05 to 1.2 A	1 to 4700 μ H

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EMI Suppression Chokes

B82422

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B-39-13

HF chokes

Rated current 0.06 to 0.4 A

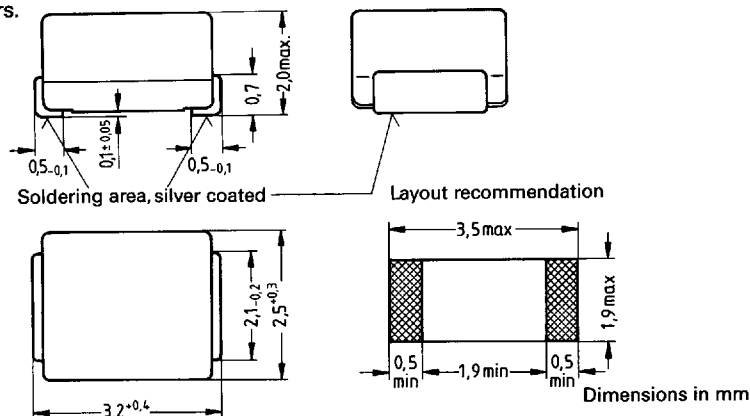
SMD chip inductors

SIMID 02 series (Siemens Miniature-Inductors)

This flame-retardant, insulated miniature chip choke comprises a ceramic or ferrite core, wound with a single-layer or multilayer copper-wire. The winding ends are welded to the contact elements (CuSn6) at the front end.

Chip chokes can be dip-soldered and are suitable for automatic assembly.

Due to their special construction, these chip chokes are particularly suitable for use in HF circuits, such as tuners for TV sets and video tape recorders, car radios, mobile telephones and antenna amplifiers.



Technical data

Dimensions $l \times b \times h$ (mm) in acc. with EIA	$3.2 \times 2.5 \times 2.0$ 1210
Rated inductance at measuring frequency	0.1 μ H to 100 μ H 1 MHz for $L \leq 10 \mu$ H 10 kHz for $L > 10 \mu$ H
Rated inductance tolerance	$\pm 20\%$
Rated current	referred to 40 °C/104 °F ambient temperature
DC resistance	measured at 20 °C/68 °F
Quality	measured with quality test setup HP 4342A
Resonance frequency	absorption measurement in acc. with MIL-C-15305 with Scalar Network Analyzer ZAS from Rohde & Schwarz
DIN climatic category (DIN 40040)	FKF (-55 to +125 °C/-67 to +257 °F, humidity category F)
IEC climatic category (IEC 68)	55/125/56
Permissible soldering method	reflow soldering and dip soldering
Resistance to soldering heat Test Tb, DIN IEC 68-2-20	260 °C/500 °F, 10 s
Permissible bending of the PCB *)	1 mm

*) Bending test in accordance with DIN 45 921, draft May 1984, for chip resistors

EMI Suppression Chokes

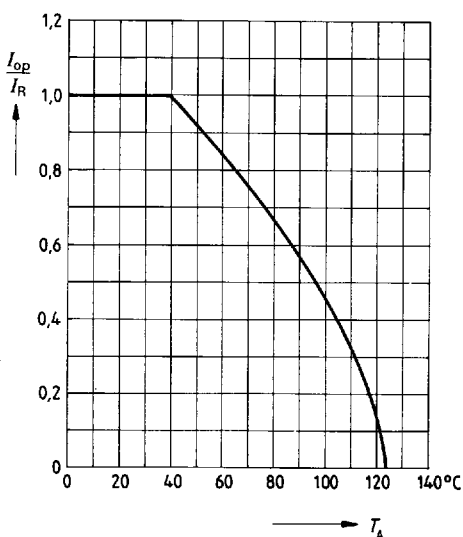
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B-39-13

Inductance L μH	Quality at test frequency		Rated current I_R mA	DC resis- tance $R_{T\max}$ Ω	Resonance frequency f_{\min} MHz	Ordering code PU: 2000	Carrier material	
	Q_{\min}	MHz						
0.1	35	50	400	0.30	920	B82422-A3101-M	Ceramic	S
0.15	35	50	360	0.38	830	B82422-A3151-M		
0.22	35	50	320	0.47	680	B82422-A3221-M		
0.33	35	50	200	1.20	540	B82422-A3331-M		
0.47	30	35	150	2.20	450	B82422-A3471-M		
0.68	30	35	125	3.10	390	B82422-A3681-M		
1.0	25	7.96	370	0.36	290	B82422-A1102-M	Ferrite	S
1.5	25	7.96	330	0.44	250	B82422-A1152-M		
2.2	25	7.96	255	0.75	210	B82422-A1222-M		
3.3	25	7.96	200	1.25	170	B82422-A1332-M		
4.7	25	7.96	150	2.20	145	B82422-A1472-M		
6.8	25	7.96	120	3.45	115	B82422-A1682-M		
10	25	2.52	180	1.60	21	B82422-A1103-M		
15	25	2.52	160	1.95	17	B82422-A1153-M		
22	25	2.52	145	2.35	14.5	B82422-A1223-M		
33	25	2.52	110	4.00	11.5	B82422-A1333-M		
47	25	2.52	80	7.25	7.5	B82422-A1473-M		
68	20	2.52	65	11.00	6.5	B82422-A1683-M		
100	20	2.52	60	13.50	5.5	B82422-A1104-M		

Lab assortment containing 95 items, 5 per value,
range of values 0.1 μH to 100 μH , in 8 mm film packing
Ordering code B82422-X1 S



Current carrying capability $\frac{I_{op}}{I_R}$
versus ambient temperature T_A

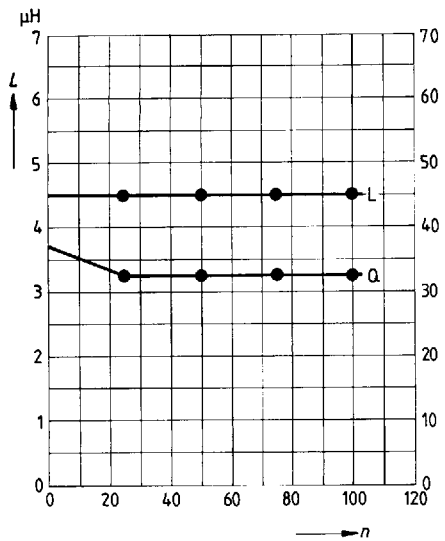
EMI Suppression Chokes

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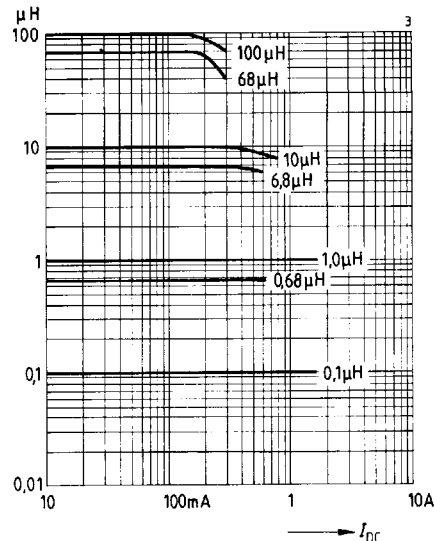
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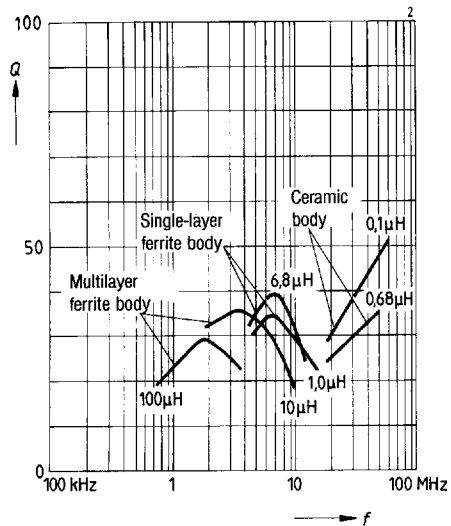
Inductance L and quality Q
 versus number n
 of dip soldering processes (240 °C/464 °F, 5 s)



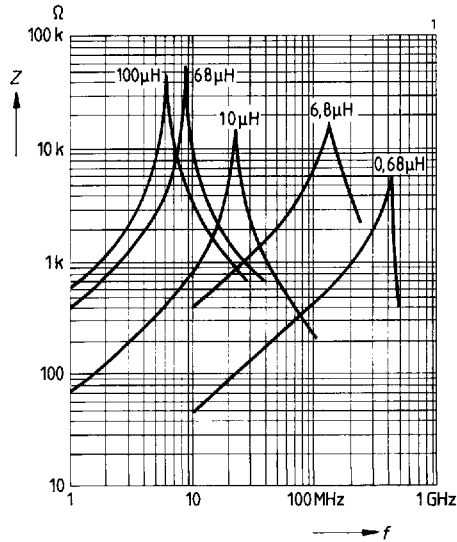
Inductance L
 versus dc load I_{DC}
 measured with LCR meter HP 4275A



Quality Q
 versus frequency f
 measured with quality test set-up HP 4342A



Impedance Z
 versus frequency f
 measured with vector analyzer ZPV



EMI Suppression Chokes

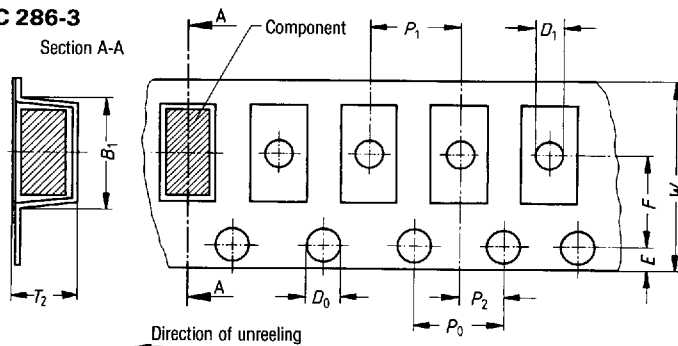
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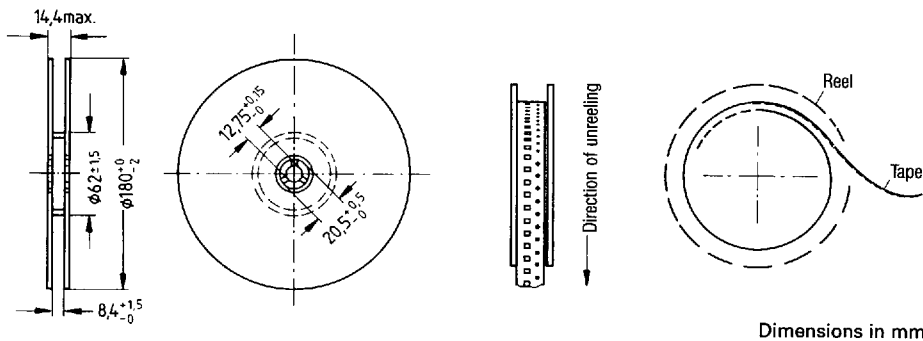
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Taping in acc. with IEC 286-3

Dimension	mm
W	8 ± 0.3
P_0	4 ± 0.1
D_0	1.5 ± 0.1
E	1.75 ± 0.1
F	3.5 ± 0.05
P_2	2 ± 0.05
P_1	4 ± 0.1
D_1	1.0 ± 0.2
T_2	≤ 2.0
B_1	≤ 4.2



Packing



Marking: Inductance value and tolerance \triangleq last four digits of ordering code.