



Ni-Zn SOFT FERRITE CORES-SH-Series

SH-Series For EMI suppression

Features

1. One hole rod type
2. Excellent heat resistance.
3. Available in various sizes & materials.
4. High reliability



Applications

- E.M.I. Suppression on round cable.
1. Computer and peripheral products
 2. Consumer electronic products
 3. Communication electronic products
 4. Measuring instruments

Product Identification

M2L SH 4×5×2 - PF

M2L:Material Type CODE

RH: SERIES NAME

4: DIMENSION SIZE CODE=A

5: DIMENSION SIZE CODE=D

2: DIMENSION SIZE CODE=C

PF:Pb-Free

Shapes and Dimensions (mm)

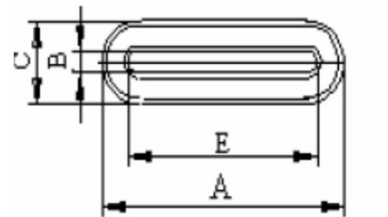


Fig-1

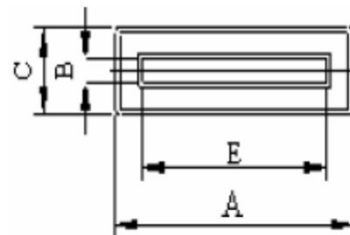


Fig-2



Ni-Zn SOFT FERRITE CORES

MATERIAL CHARACTERISTICS

Material	Practical Frequency	Initial permeability μ_{iac}	Relative loss factor $\tan\sigma/\mu_{iac}$	Temperature coefficient α_{μ}	Saturation Flux density Bm	Remanence Br	Coercivity Hc	Curie Temperature Tc	Resistivity ρ	Density d
	MHz	μ_{iac}	$\times 10^{-6}$	$\times 10^{-6}/^{\circ}\text{C}$	Gauss	Gauss	Oersted	$^{\circ}\text{C}$	$\Omega \text{ cm}$	g/cm
M2L	0.1-1.5	700±25%	30(0.1)/150(1.5)	3	3100	1600	0.25	120	10^7	4.9
M3L	0.01-0.5	1500±25%	10(0.01)/60(0.5)	3	2800	1600	0.20	100	10^7	4.8
M4L	0.05-0.5	1000±25%	10(0.05)/45(0.5)	7	3500	1600	0.23	150	10^7	5.0
M5D	0.05-3.0	450±25%	15(0.01)/65(3.0)	20	4000	4000	0.30	180	10^7	5.1
M6D	0.1-2.0	500±25%	20(0.1)/90(2.0)	25	3900	2400	0.30	220	10^7	5.0
M11D	0.1-2.0	450±25%	15(0.05)/80(2.0)	25	4000	2400	0.30	200	10^7	5.0
M13D	0.05-2.0	400±25%	15(0.05)/80(2.0)	25	4100	2400	0.30	200	10^7	5.0
M5H	1.0-50	55±25%	150(1.0)/500(50)	80	3900	4000	5.50	300	10^7	4.8
M4S	1.0-30	650±25%	13(1.0)/90(5.0)	30	3900	4000	0.45	180	10^7	4.9
M5S	0.05-2.0	600±25%	15(0.05)/90(2.0)	25	3800	2500	0.40	180	10^7	4.9
M11F	0.05-1.0	800±25%	10(0.05)/60(1.0)	20	3500	2000	0.40	180	10^7	4.9



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Electrical Characteristics

Part Number	Dimensions (mm)					Typical Impedance(Ω)		Fig
	A	B	C	D	E	25MHz	100MHz	
SH 9.50x25.0x4.0	9.50±0.40	1.00±0.30	4.00±0.40	25.0±0.50	6.50±0.30	65	150	1
SH 16.0x12.0x4.5	16.0±0.4	0.80±0.30	4.50±0.30	12.0±0.40	11.5±0.40	20	70	1
SH16.0x12.0x5.0	16.0±0.70	1.20±0.30	5.00±0.30	12.0±0.40	11.5±0.70	30	65	1
SH19.0 x12.0 x 6.5	19.0±0.30	1.50±0.15	6.50±0.20	12.0±0.30	13.5±0.30	30	60	1
SH20.0 x7.0 x8.0	20.0±0.60	1.00±0.30	8.00±0.40	7.00±0.40	9.00±0.40	20	60	1
SH 23.3 x 7.0 x 3.0	23.3±0.50	0.90±0.30	3.00±0.20	7.00±0.30	20.0±0.50	15	30	1
SH 23.3 x 12.0 x 3.0	23.3±0.50	0.90±0.30	3.00±0.20	12.0±0.40	20.0±0.50	30	60	1
SH 23.5 x 10.0 x 6.3	23.5±0.80	1.00±0.20	6.30±0.40	10.0±0.50	19.0±0.50	35	70	1
SH 24.5 x 12.0 x 5.0	24.5±0.50	0.80±0.30	5.00±0.50	12.0±0.40	20.0±0.50	30	90	1
SH 25.0 x 12.0 x 5.0	25.0±0.50	0.80±0.30	5.00±0.50	12.0±0.40	21.4±0.50	35	100	1
SH 26.0 x 15.0 x 5.0	26.0±0.60	0.80±0.30	5.00±0.50	15.0±0.50	22.0±0.50	40	110	1
SH 28.0 x 12.0 x 3.5	28.0±0.50	0.70±0.30	3.50±0.20	12.0±0.40	24.0±0.50	21	60	1
SH 28.5 x 12.0 x5.0	28.5±0.80	1.00±0.20	5.00±0.30	12.0±0.50	23.7±0.70	28	80	1
SH 28 x 14.6 x 7.7	28.0±0.60	1.40±0.40	7.70±0.50	14.6±0.50	22.8±0.80	35	110	1
SH 28.5 x 15.0 x 4.0	28.5±0.70	1.00±0.20	4.00±0.30	15.0±0.40	23.7±0.60	27	72	1
SH 28.5 x 16.0 x 6.5	28.5±0.70	1.00±0.20	6.50±0.30	16.0±0.40	23.0±0.60	41	172	1
SH 28.5 x 18.0 x 6.5	28.5±0.70	1.00±0.20	6.50±0.30	18.0±0.60	23.0±0.60	35	100	1
SH 31.0 x 8.0 x 5.0	28.5±0.70	0.85±0.30	4.65±0.35	8.00±0.30	27.3±0.50	28	90	1
SH 31.0 x 10.0 x 5.0	28.5±0.70	0.85±0.30	4.65±0.35	10.0±0.30	27.3±0.50	30	95	1
SH 31.0 x 12.0 x 3.0	28.5±0.70	1.00±0.30	3.00±0.40	12.0±0.40	27.4±0.50	12	35	1
SH 31.0 x 12.0 x 5.0	28.5±0.70	0.85±0.30	5.00±0.35	12.0±0.40	27.3±0.50	33	100	1
SH 32.5 x 12.0 x 4.0	32.5±1.00	0.70±0.20	4.00±0.30	12.0±0.50	27.5±0.70	25	85	1
SH 33.5 x 8.0 x 6.5	33.5±0.90	1.50±0.40	6.50±0.50	8.00±0.30	27.0±0.50	28	90	1
SH 33.5 x 10.0 x 6.5	33.5±0.90	1.50±0.40	6.50±0.50	10.0±0.30	27.0±0.50	32	95	1
SH 33.5 x 12.0 x 6.5	33.5±0.90	1.50±0.40	6.50±0.50	12.0±0.40	27.0±0.50	35	100	2
SH 33.5 x 15.5 x 6.5	33.5±0.90	1.50±0.40	6.50±0.50	15.0±0.50	29.9±0.70	32	100	1
SH 34.5 x 10.0 x 4.0	34.5±1.00	0.70±0.20	4.00±0.30	12.0±0.50	27.5±0.70	15	35	1
SH 34.0 x 20.0 x 8.0	34.0±0.80	0.80±0.30	8.00±0.30	20.0±0.60	30.0±0.60	60	200	1
SH 38.5 x 12.0 x 4.0	38.5±0.80	0.60±0.20	4.00±0.30	12.0±0.30	34.5±0.60	15	55	1
SH 38.8 x 28.6 x 26	38.8±0.80	12.9±0.30	26.0±0.70	28.6±0.70	26.5±0.50	90	184	1
SH 40.0 x 8.0 x 6.5	40.0±0.90	1.30±0.30	6.50±0.50	8.00±0.30	34.8±0.60	28	90	1
SH 40.0 x 10.0 x 6.5	40.0±0.90	1.30±0.30	6.50±0.50	10.0±0.30	34.8±0.60	30	95	1
SH 40.0 x 12.0 x 6.5	40.0±0.90	1.30±0.30	6.50±0.50	12.0±0.40	34.8±0.60	33	100	1
SH 45.2 x 8.0 x 6.5	45.2±0.90	1.30±0.40	6.50±0.50	8.00±0.30	40.0±0.90	28	90	1
SH 45.2 x 12.0 x 6.5	45.2±0.90	1.30±0.40	6.50±0.50	12.0±0.40	40.0±0.90	32	95	1
SH 49.6 x 12.0x 6.5	49.6±0.90	1.30±0.40	6.50±0.50	12.0±0.40	44.0±0.90	30	95	1
SH 57.6 x 12.0 x 6.5	57.6±0.90	1.30±0.40	6.50±0.50	12.0±0.40	52.0±0.90	32	95	1

Test condition

Use copper line (length =10mm,outside diameter =0.65) to

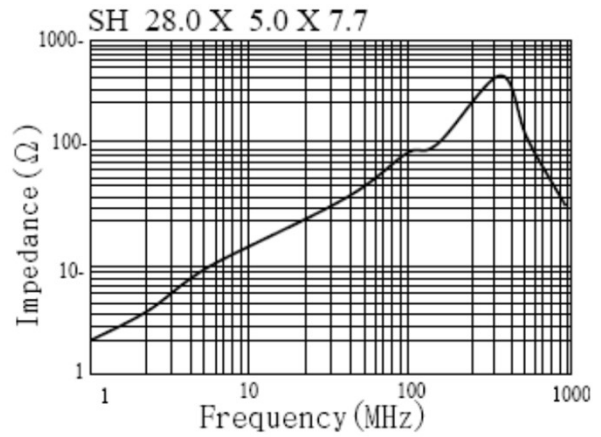
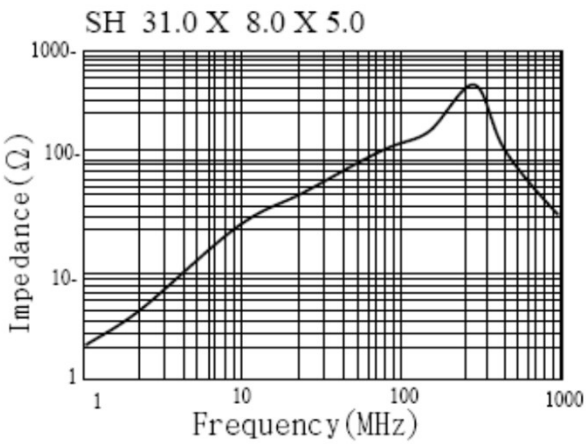
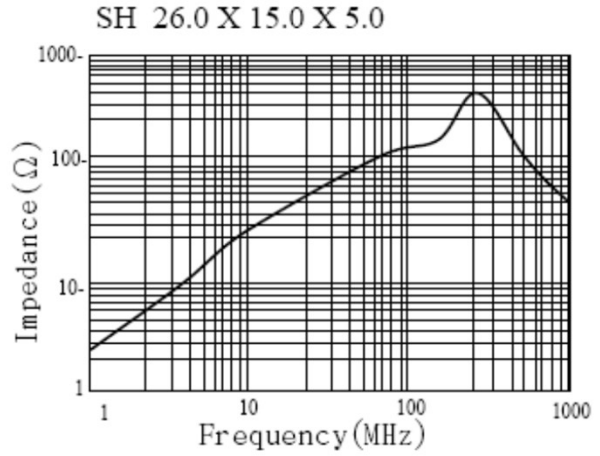
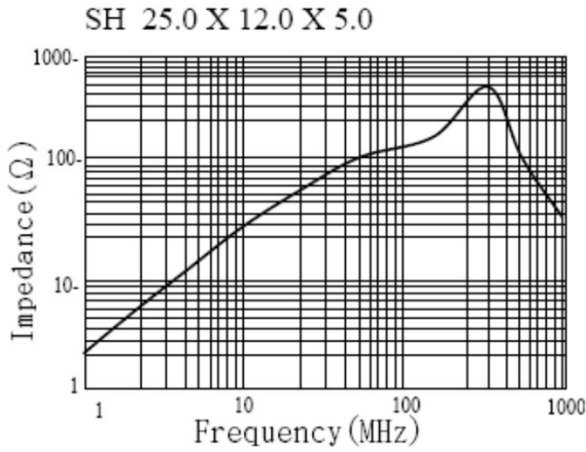
test ferrite cores when the test frequency in 25MHz and 100MHz



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Impedance Vs Frequency





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