

MATERIAL CHARACTERISTICS

Mn - Zn FERRITES

Material			JP3	JP4A	JH5	JH5A	JH7	JH7A	JH10
Initial permeability			2500	2300	5500	5300	7000	7500	10000
			±25%	±25%	±25%	±25%	±25%	±25%	±30%
Saturation flux density	B _s	mT	510	510	420	410	400	410	400
			(1194A/m)	(1194A/m)	(800A/m)	(1194A/m)	(800A/m)	(1194A/m)	(1194A/m)
Remanence	B _r	mT	117	95	150	130	90	80	90
Coercivity	H _c	A/m	12	14	8	8	10	6	7
Curie temperature	T _c	°C	>230	>215	>140	>130	>125	>130	>120
Resistivity	ρ	Ω·m	10	6.5	0.3	1	0.3	0.2	0.05
Density	d	g/cm ³	4.8	4.8	4.9	4.9	4.9	4.9	4.9
Relative loss factor	tanδ _p	× 10 ⁻⁶			≤15	≤12	≤7	≤30	≤7
					(100kHz)	(100kHz)	(10kHz)	(100kHz)	(10kHz)
					≤180				
					(500kHz)				
Relative temperature coefficient	α	10 ⁻⁶ /K			0 - 1.5	-0.5 - 1.5	0 - 2		-0.5 - 1.5
					(20 - 60°C)	(20 - 70°C)	(20 - 55°C)		(20 - 70°C)
Power loss	P _c	kW/m ³	25°C	130	120				
			(25kHz, 200mT)	60°C	90	80			
			100°C	100	70				
(100kHz, 200mT)			25°C	700	600				
			60°C	500	450				
			100°C	600	410				

MATERIAL CHARACTERISTICS

Ni - Zn FERRITES

Material		JR10	JR30	JR60	JR100A	JR300	JR500	JR1K	JR1.5K	
Initial permeability	μ_i	10 $\pm 20\%$	30 $\pm 20\%$	60 $\pm 20\%$	100 $\pm 20\%$	300 $\pm 20\%$	500 $\pm 20\%$	1000 $\pm 20\%$	1500 $\pm 20\%$	
Operation frequency range	MHz	< 150	< 60	< 30	< 10	< 4	< 2	< 1.5	< 1	
Relative loss factor	$\tan\delta/\mu_i \times 10^{-6}$	≤ 660 (7.95MHz)	≤ 200 (10MHz)	≤ 110 (10MHz)	≤ 80 (2.52MHz)	≤ 40 (2.52MHz)	≤ 10 (100KHz)	≤ 40 (100KHz)	≤ 30 (100KHz)	
Relative temperature coefficient	α	$10^{-6}/K$	≤ 150	≤ 120	≤ 45	≤ 10 (20 - 70°C)	≤ 8	≤ 10	≤ 5	≤ 4
Saturation flux density	Bs mT		350 (4000A/m)	350 (4000A/m)	350 (4000A/m)	350 (1600A/m)	320 (1600A/m)	350 (4000A/m)	280 (1600A/m)	
Curie temperature	Tc °C	> 460	> 400	> 300	> 350	> 150	> 170	> 150	> 100	
Resistivity	ρ	$\Omega \cdot m$	$\approx 10^5$	$\approx 10^5$	$\approx 10^5$	$\approx 10^4$	$\approx 10^5$	$\approx 10^5$	$\approx 10^5$	
Density	d	g/cm^3	4.5	4.7	5	4.5	4.8	5	4.8	