

F52

Material Type: Nickel-Zinc Ferrite

Properties: Good permeability
Low losses up to 2 MHz
High impedance above 20 MHz

Frequency Range: 100 kHz to 2 MHz (subject to application)

Typical Application: Common mode chokes, filters and EMI suppression

Standard Geometries: Toroids, squaroids, baluns and multi-aperture cores
Additional shapes are available upon request



Parameter	Symbol	Standard Test Conditions			Unit	Value
Initial Permeability (nominal)	μ_i	$B < 0.1 \text{ mT}$	$f = 10 \text{ kHz}$	$T = 25^\circ\text{C}$	-	850
Saturation Flux Density (typical)	B_s	$H = 1200 \text{ A/m (15 Oe)}$		$T = 25^\circ\text{C}$	mT	210
Remanent Flux Density (typical)	B_r	$H \sim 0 \text{ A/m (from near saturation)}$ $f = 10 \text{ kHz}$		$T = 25^\circ\text{C}$	mT	130
Coercivity (typical)	H_c	$B \sim 0 \text{ mT (from near saturation)}$ $f = 10 \text{ kHz}$		$T = 25^\circ\text{C}$	A/m	50
Loss Factor (maximum)	$\frac{\tan \delta}{\mu_i}$	$B < 0.1 \text{ mT}$	$f = 2 \text{ MHz}$	$T = 25^\circ\text{C}$	10^{-6}	26
Curie Temperature (minimum)	T_c	$B < 0.1 \text{ mT}$	$f = 10 \text{ kHz}$		$^\circ\text{C}$	115
Resistivity (typical)	ρ	$E = 1 \text{ V/cm}$		$T = 25^\circ\text{C}$	$\Omega \cdot \text{cm}$	100

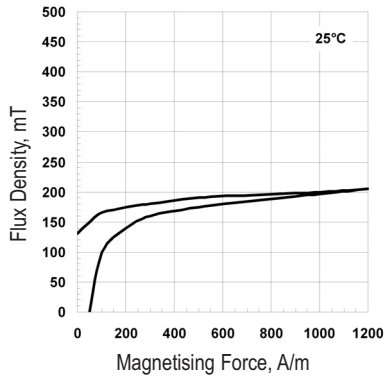
* Data was derived from measurements made on a standard test toroid core with an outside diameter of 30 mm



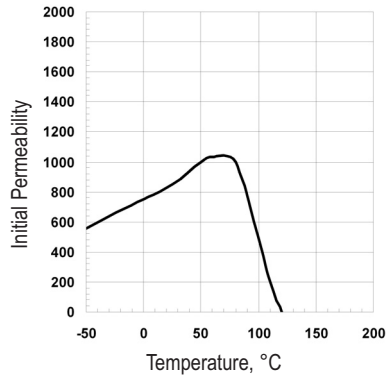
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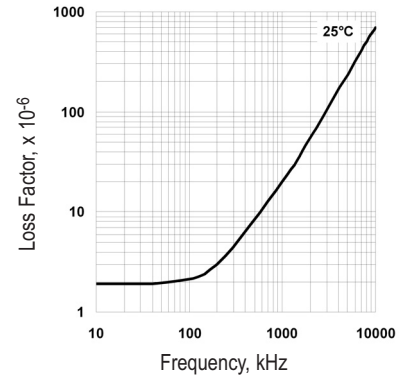
Dynamic Magnetisation Curve



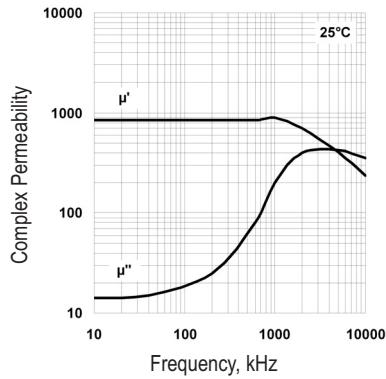
Permeability vs Temperature



Loss Factor vs Frequency



Permeability vs Frequency



Impedance vs Frequency

