



MMG Canada Limited

# FA1

**Material Type:** Nickel-Zinc Ferrite

**Properties:** Moderate initial permeability  
High volume resistivity  
Low dielectric losses

**Frequency Range:** 10 kHz to 10 MHz (subject to application)

**Typical Application:** Broadband RF transformers

**Standard Geometries:** Toroids, squaroids and baluns  
Additional shapes are available upon request



Parameter	Symbol	Standard Test Conditions			Unit	Value
Initial Permeability (nominal)	$\mu_i$	$B < 0.1 \text{ mT}$	$f = 10 \text{ kHz}$	$T = 25^\circ\text{C}$	-	370
Saturation Flux Density (typical)	$B_s$	$H = 1200 \text{ A/m (15 Oe)}$		$T = 25^\circ\text{C}$	mT	310
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	270
Coercivity (typical)	$H_c$	$B \sim 0 \text{ mT (from near saturation)}$ $f = 10 \text{ kHz}$		$T = 25^\circ\text{C}$	A/m	60
Loss Factor (maximum)	$\frac{\tan \delta}{\mu_i}$	$B < 0.1 \text{ mT}$	$f = 100 \text{ kHz}$	$T = 25^\circ\text{C}$	$10^{-6}$	65
Curie Temperature (minimum)	$T_c$	$B < 0.1 \text{ mT}$	$f = 1 \text{ kHz}$		$^\circ\text{C}$	145
Resistivity (typical)	$\rho$	$E = 1 \text{ V/cm}$		$T = 25^\circ\text{C}$	$\Omega \cdot \text{cm}$	$1 \times 10^8$

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

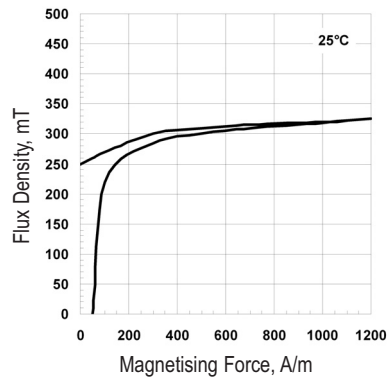




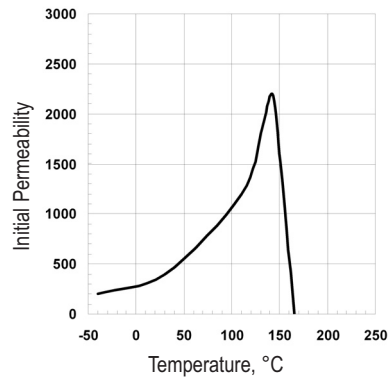
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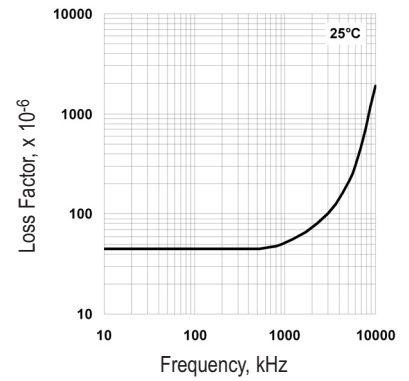
### Dynamic Magnetisation Curve



### Permeability vs Temperature



### Loss Factor vs Frequency



### Permeability vs Frequency

