



MMG Canada Limited

# F82

**Material Type:** Manganese-Zinc Ferrite

**Properties:** High permeability  
High saturation flux density  
Good performance with frequency

**Frequency Range:** DC to 1 MHz (subject to application)

**Typical Application:** Wideband and pulse transformers, filters and common mode chokes

**Standard Geometries:** Toroids, baluns, E, RM and pot cores  
Additional shapes are available upon request



Parameter	Symbol	Standard Test Conditions	Unit	Value
Initial Permeability (nominal)	$\mu_i$	$B < 0.1 \text{ mT}$ $f = 10 \text{ kHz}$ $T = 25^\circ\text{C}$	-	5000
Saturation Flux Density (typical)	$B_s$	$H = 796 \text{ A/m (10 Oe)}$ $T = 25^\circ\text{C}$	mT	460
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	170
Coercivity (typical)	$H_c$	$B \sim 0 \text{ mT (from near saturation)}$ $f = 10 \text{ kHz}$ $T = 25^\circ\text{C}$	A/m	13
Loss Factor (maximum)	$\frac{\tan \delta}{\mu_i}$	$B < 0.1 \text{ mT}$ $f = 100 \text{ kHz}$ $T = 25^\circ\text{C}$	$10^{-6}$	20
Curie Temperature (minimum)	$T_c$	$B < 0.1 \text{ mT}$ $f = 10 \text{ kHz}$	$^\circ\text{C}$	160
Resistivity (typical)	$\rho$	$E = 1 \text{ V/cm}$ $T = 25^\circ\text{C}$	$\Omega \cdot \text{cm}$	20

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

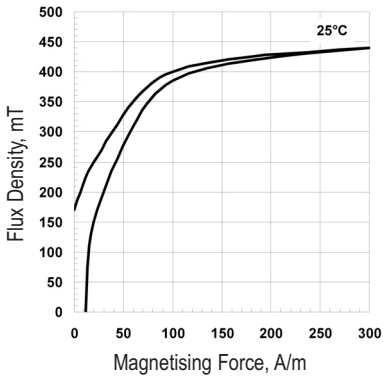




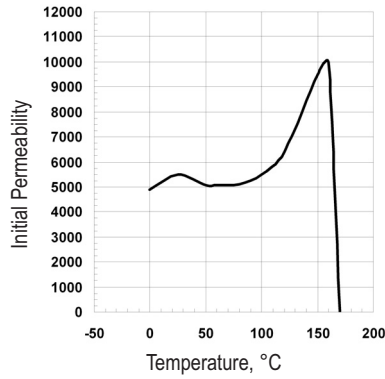
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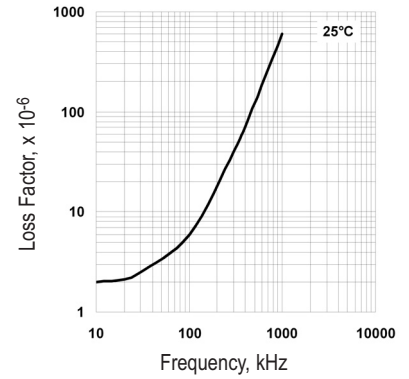
Dynamic Magnetisation Curve



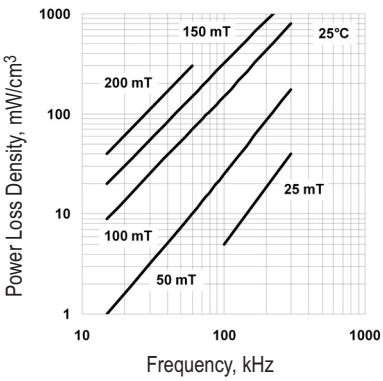
Permeability vs Temperature



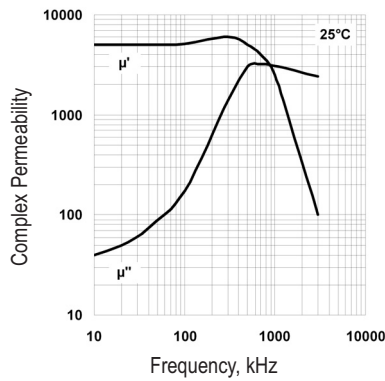
Loss Factor vs Frequency



Power Loss vs Frequency



Permeability vs Frequency



Impedance vs Frequency

