



NATIONAL MAGNETICS GROUP, INC.

MANUFACTURERS OF MAGNETIC AND ADVANCED MATERIALS

AFFILIATE: TCI CERAMICS, INC.

M50

Material

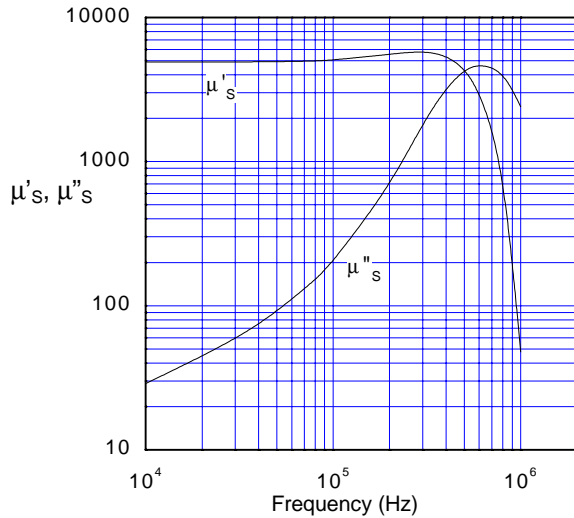
A high permeability, low loss MnZn ferrite designed for a range of applications including broadband and pulse transformer and filtering applications.

Specifications

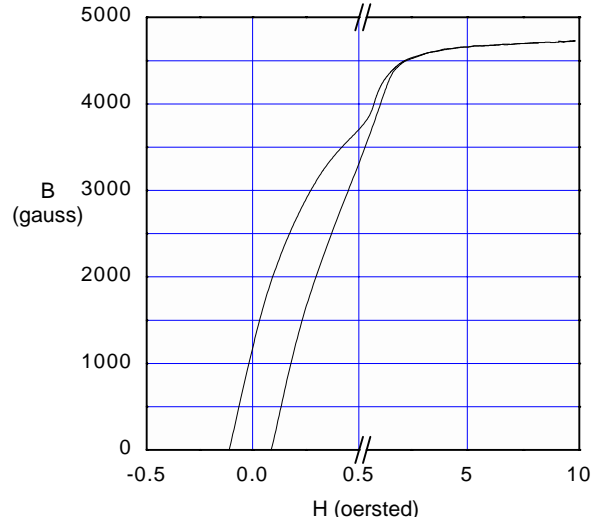
Property	Unit	Symbol	Standard Test Conditions	Value
Initial Permeability		μ_i	Frequency=10 kHz; B<10 gauss	5000 \pm 30%
Saturation Flux Density	gauss	B_s	H=10 oersted	\approx 4700
Residual Flux Density	gauss	B_r		\approx 1200
Coercive Force	oersted	H_c		\approx 0.1
Loss Factor	10^{-6}	$\text{Tan}\delta/\mu_i$	Frequency=0.1 MHz; B=1 gauss	\leq 15
Temperature Coefficient of Initial Permeability (20-70°C)	%/°C			\leq 0.5
Volume Resistivity	Ω cm	ρ		\approx 200
Curie Temperature	°C	T_c		\geq 175

Note: values are typical and based on measurements of a standard toroid at 25 °C

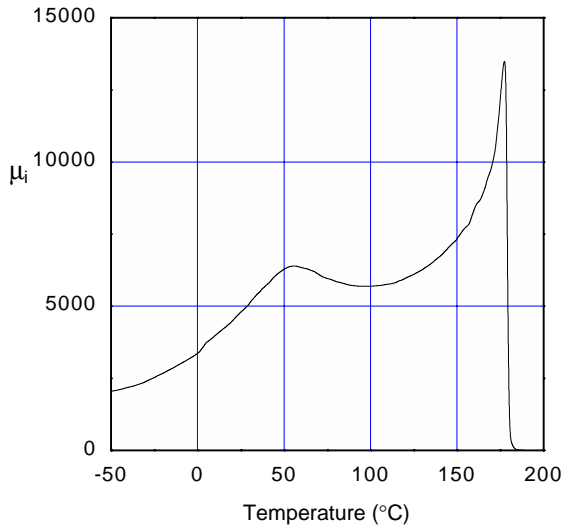
Complex Permeability vs. Frequency



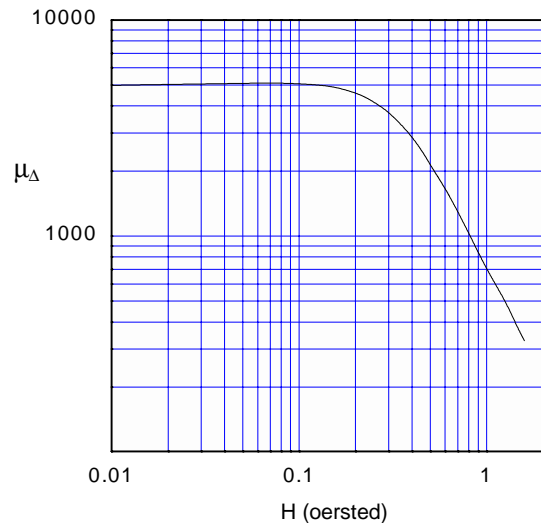
B - H Loop



Initial Permeability vs. Temperature



Incremental Permeability vs. Field Strength



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