



NATIONAL MAGNETICS GROUP, INC.

MANUFACTURERS OF MAGNETIC AND ADVANCED MATERIALS

AFFILIATE: TCI CERAMICS, INC.

M20

Material

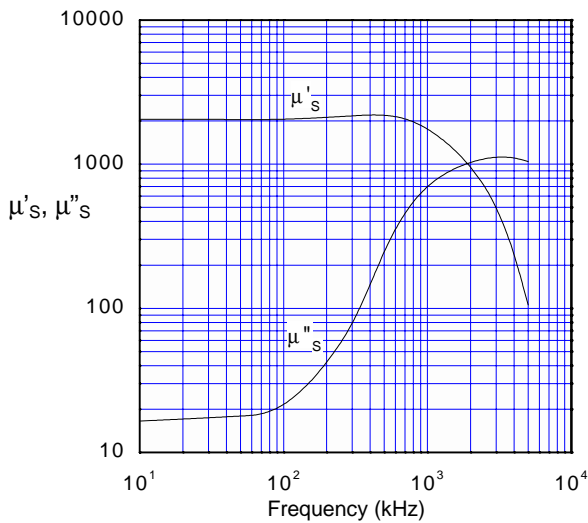
An MnZn ferrite with high saturation for high flux power applications for frequencies up to 200 kHz and also for inductive applications, including RFID transponders.

Specifications

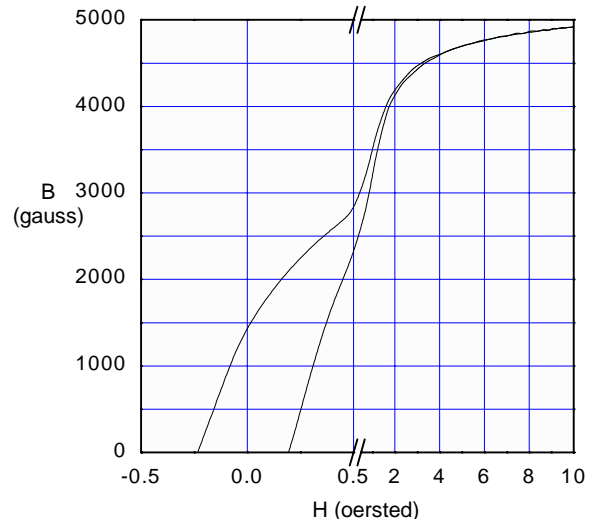
Property	Unit	Symbol	Standard Test Conditions	Value
Initial Permeability		μ_i	Frequency=10 kHz; B<10 gauss	2000 \pm 20%
Saturation Flux Density	gauss	B_s	H=10 oersted	\approx 4900
Residual Flux Density	gauss	B_r		\approx 1500
Coercive Force	oersted	H_c		\approx 0.2
Loss Factor	10^{-6}	$\text{Tan}\delta/\mu_i$	Frequency=0.1 MHz; B=1 gauss	\leq 15
Temperature Coefficient of Initial Permeability (20-70°C)	%/°C			\leq 0.7
Volume Resistivity	Ω cm	ρ		\approx 10^2
Curie Temperature	°C	T_c		\geq 190

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

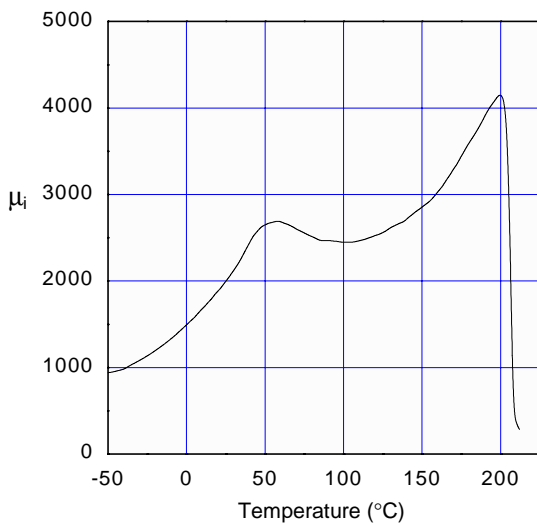
Complex Permeability vs. Frequency



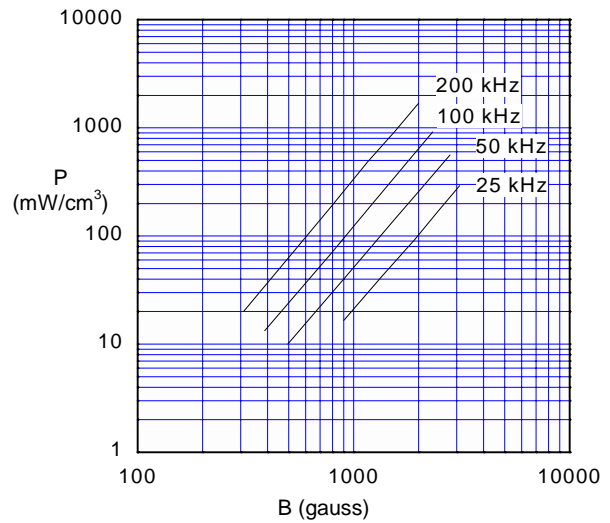
B - H Loop



Initial Permeability vs. Temperature



Power Loss Density vs. Flux Density



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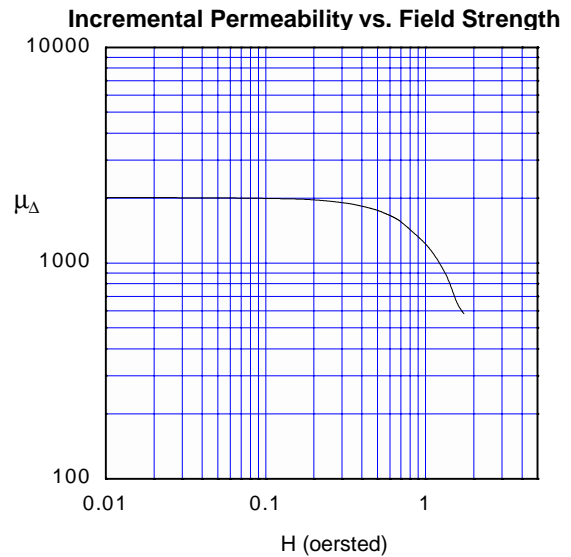
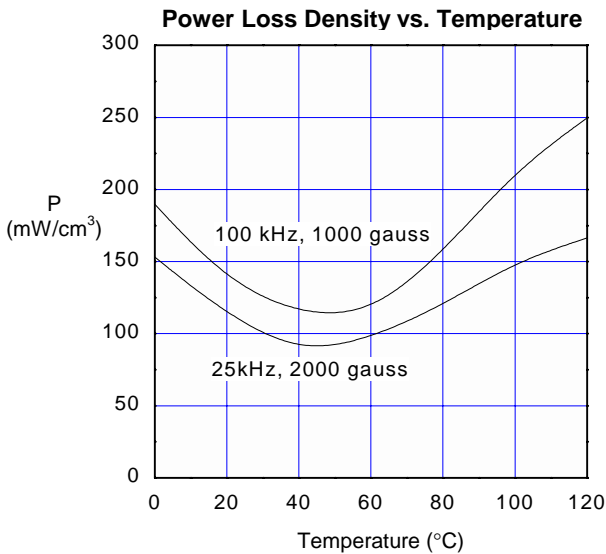
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