



# NATIONAL MAGNETICS GROUP, INC.

MANUFACTURERS OF MAGNETIC AND ADVANCED MATERIALS

AFFILIATE: TCI CERAMICS, INC.

## M25

### Material

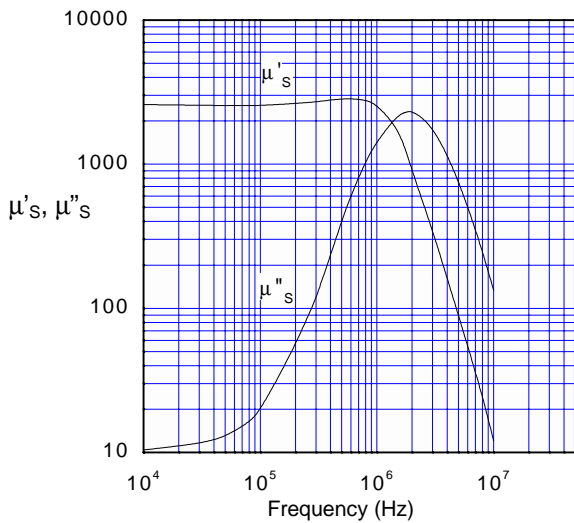
A low-loss MnZn ferrite designed for high flux power applications for frequencies up to 200 kHz and also for inductive applications, including RFID transponders.

### Specifications

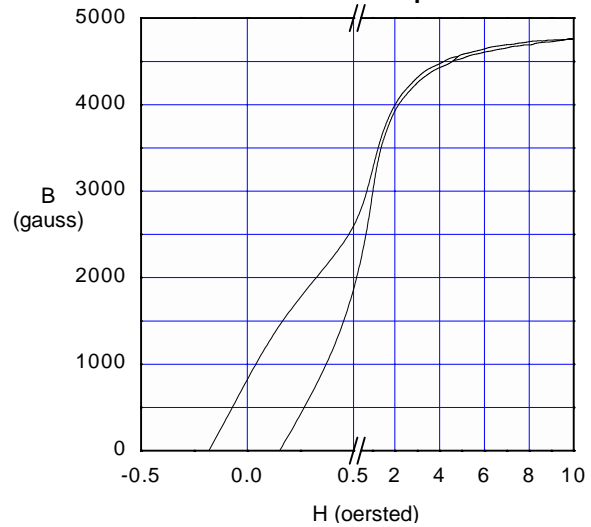
Property	Unit	Symbol	Standard Test Conditions	Value
Initial Permeability		$\mu_i$	Frequency=10 kHz; B<10 gauss	2500 $\pm$ 20%
Saturation Flux Density	gauss	$B_s$	H=10 oersted	$\approx$ 4700
Residual Flux Density	gauss	$B_r$		$\approx$ 1000
Coercive Force	oersted	$H_c$		$\approx$ 0.2
Loss Factor	$10^{-6}$	$\text{Tan}\delta/\mu_i$	Frequency=0.1 MHz; B=1 gauss	$\leq$ 5
Temperature Coefficient of Initial Permeability (20-70°C)	%/°C			$\leq$ 0.7
Volume Resistivity	$\Omega$ cm	$\rho$		$\approx$ $10^3$
Curie Temperature	°C	$T_c$		$\geq$ 210

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

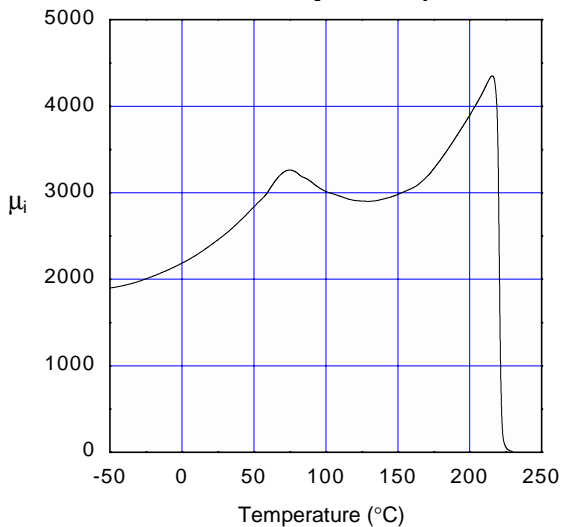
Complex Permeability vs. Frequency



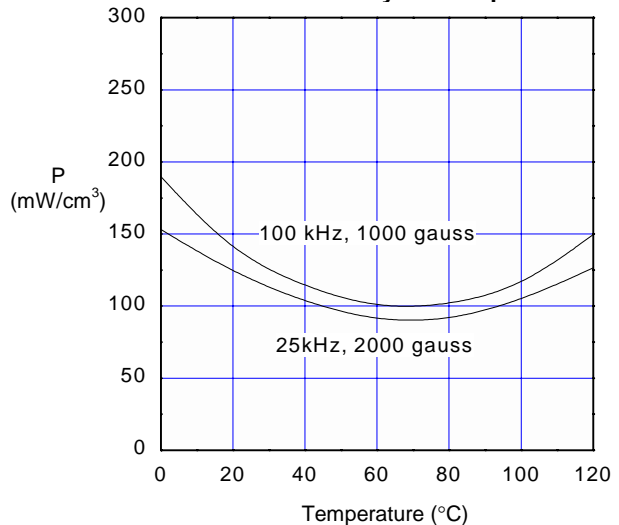
B - H Loop



Initial Permeability vs. Temperature



Power Loss Density vs. Temperature



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