



# NATIONAL MAGNETICS GROUP, INC.

CERAMIC MAGNETICS • CERAMIC POWDERS • FERRONICS • NMG • TCI CERAMICS

ISO 9001:2008

## Specifications

# M3F

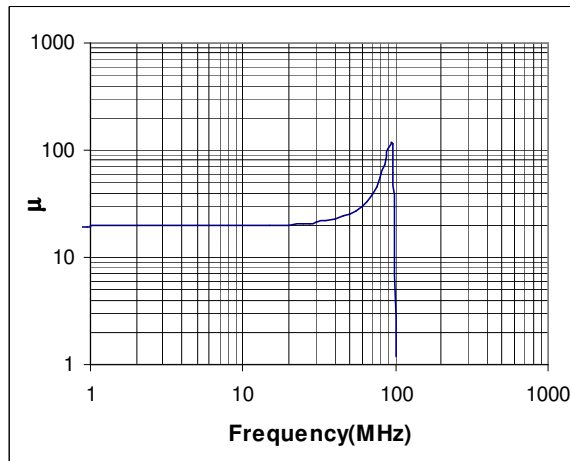
## Material

A NiZn ferrite designed for high frequency applications with very high Q at very high current level

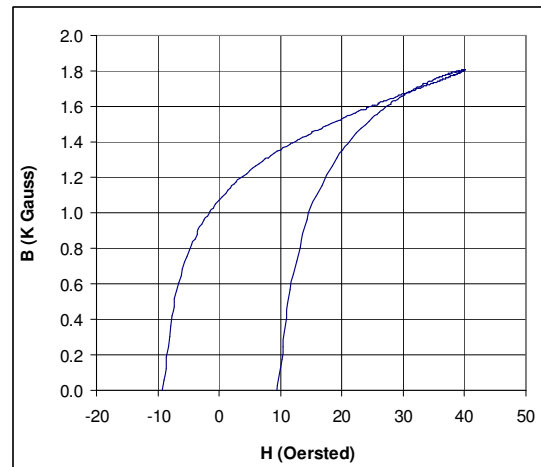
Property	Unit	Symbol	Standard Test Conditions	Value
Initial Permeability		$\mu_i$	Frequency=10 kHz; B<10 gauss	20 ± 20%
Saturation Flux Density	gauss	$B_s$	H=40 oersted	≈ 1800
Residual Flux Density	gauss	$B_r$		≈ 1100
Coercive Force	oersted	$H_c$		≈ 9
Loss Factor	10 <sup>-3</sup>	Tan $\delta/\mu_i$	Frequency=100 MHz; B=1gauss	≤ 500
Temperature Coefficient of Initial Permeability (20-70°C)	%/°C			≤ 3
Volume Resistivity	$\Omega$ cm	$\rho$		≈ 10 <sup>9</sup>
Curie Temperature	°C	$T_c$		> 400

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

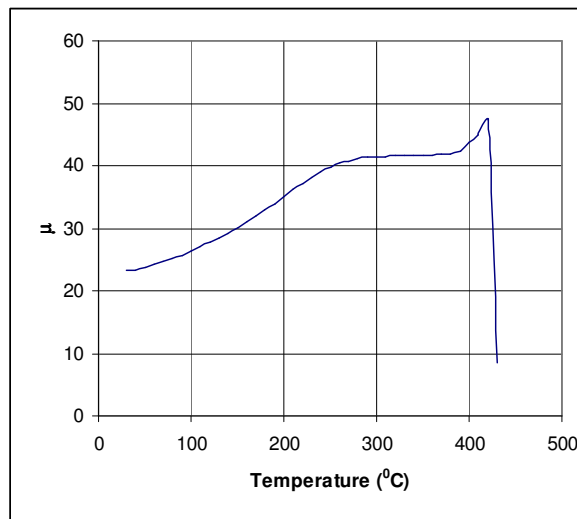
## Permeability vs Frequency



## B – H Loop



## Permeability vs Temperature



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