NATIONAL MAGNETICS GROUP, INC.
MANUFACTURERS OF MAGNETIC AND ADVANCED MATERIALS
AFFILIATE: TCI CERAMICS, INC.

G4

Material

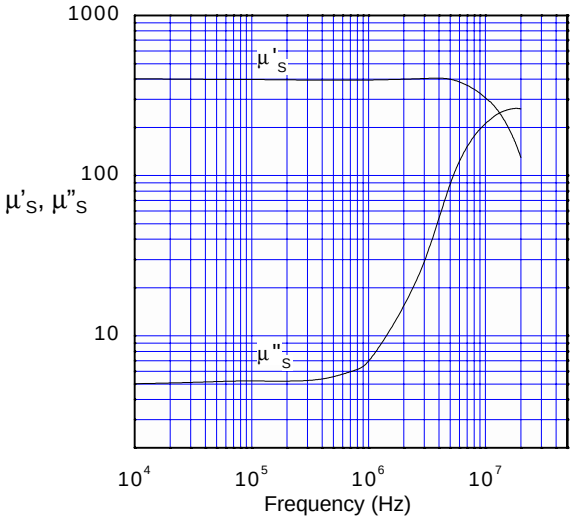
A medium permeability NiZn ferrite with high magnetic flux density and low loss suitable for broadband RF and transmission line transformers, solid state amplifier power splitters/combiners, pulsed power reactors and kicker magnets. In block form known as CMD10.

Specifications

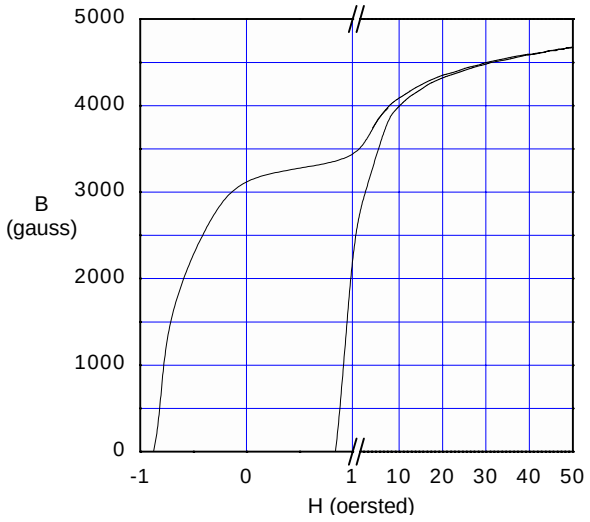
Property	Unit	Symbol	Standard Test Conditions	Value
Initial Permeability		μ_i	Frequency=10 kHz; B<10 gauss	400 ± 20%
Saturation Flux Density	gauss	B_S	H=50 oersted	≈ 4600
Residual Flux Density	gauss	B_r		≈ 3200
Coercive Force	oersted	H_C		≈ 0.8
Loss Factor	10^{-6}	$Tan\delta/\mu_i$	Frequency=0.1 MHz; B=1 gauss	≤ 35
Temperature Coefficient of Initial Permeability (20-70°C)	%/°C			≤ 0.7
Volume Resistivity	Ω cm	ρ		≈ 1×10^8
Curie Temperature	°C	T_C		≥ 250

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

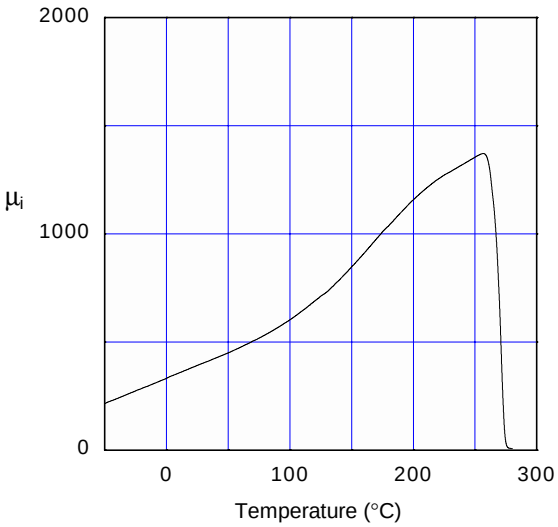
Complex Permeability vs. Frequency



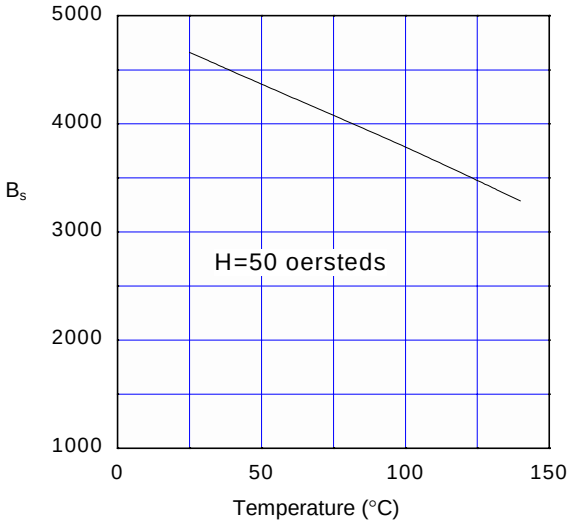
B – H Loop



Initial Permeability vs. Temperature



Saturation Flux Density vs. Temperature



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