

77 Material



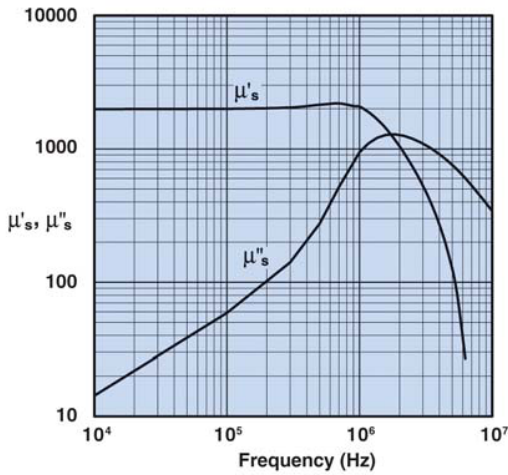
A MnZn ferrite for use in a wide range of high and low flux density inductive designs for frequencies up to 100 kHz.

Pot cores, E&I cores, U cores, rods, toroids, and bobbins are all available in 77 material.

77 Material Characteristics:

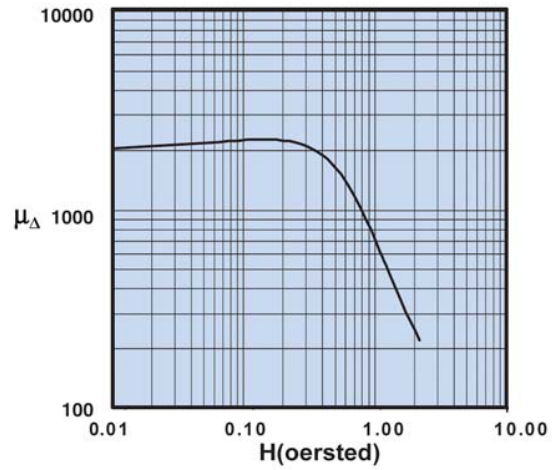
Property	Unit	Symbol	Value
Initial Permeability @ B < 10 gauss		μ_i	2000
Flux Density @ Field Strength	gauss oersted	B H	4900 5
Residual Flux Density	gauss	B_r	1800
Coercive Force	oersted	H_c	0.30
Loss Factor @ Frequency	10^{-6} MHz	$\tan \delta / \mu_i$	15 0.1
Temperature Coefficient of Initial Permeability (20 -70°C)	%/°C		0.7
Curie Temperature	°C	T_c	>200
Resistivity	Ω cm	ρ	1×10^2

Complex Permeability vs. Frequency

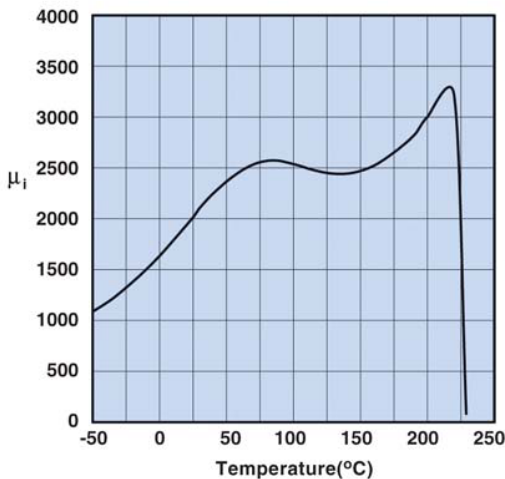


Measured on an 18/10/6mm toroid using the HP 4284A and the HP 4291A.

Incremental Permeability vs. H

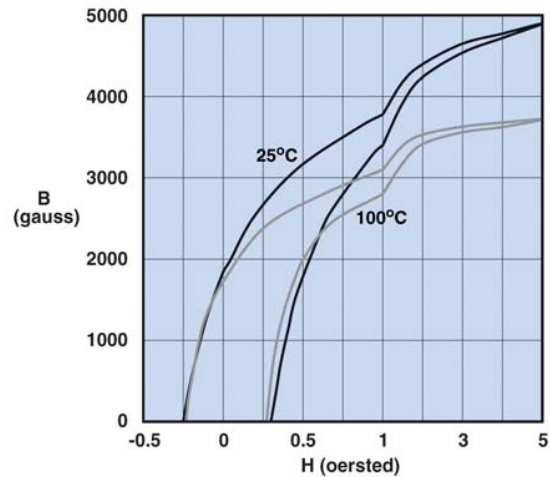


Initial Permeability vs. Temperature



Measured on an 18/10/6mm toroid at 100 kHz.

Hysteresis Loop

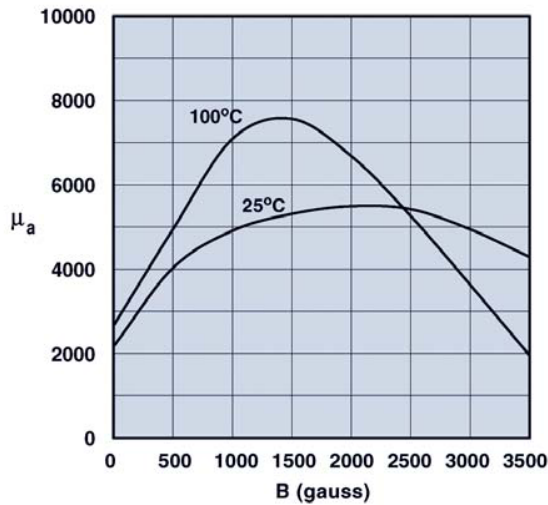


Measured on an 18/10/6mm toroid at 10 kHz.

Fair-Rite Products Corp. PO Box 288, One Commercial Row, Wallkill, NY 12589-0288

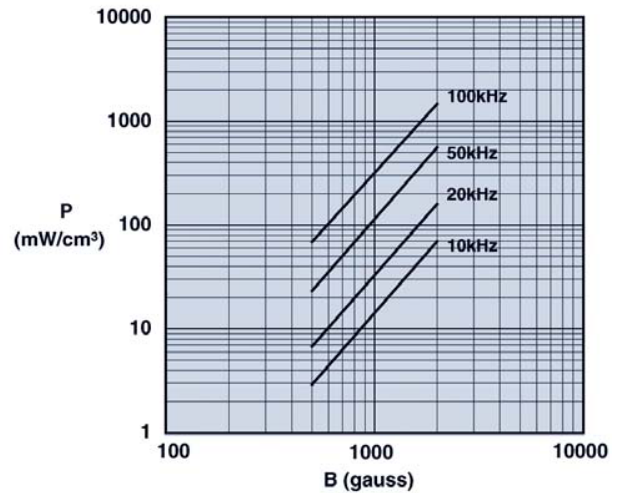
Phone: (888) FAIR RITE / (845) 895-2055 • Fax: (888) FERRITE / (845) 895-2629 • Web: www.fair-rite.com
 (888) 324-7748 (888) 337-7483 E -mail: ferrites@fair-rite.com

Amplitude Permeability vs. Flux Density



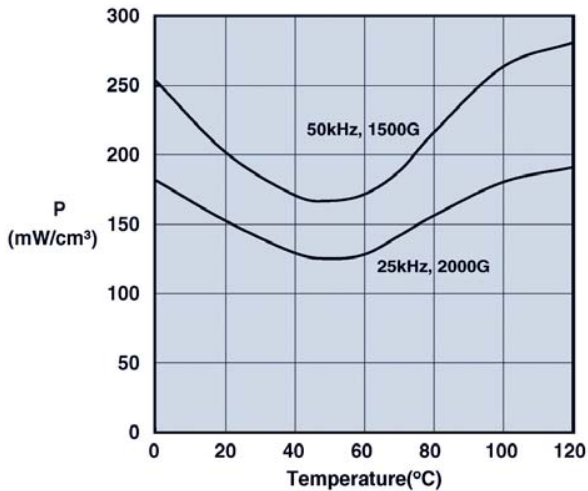
Measured on an 18/10/6mm toroid at 10 kHz.

Power Loss Density vs. Flux Density



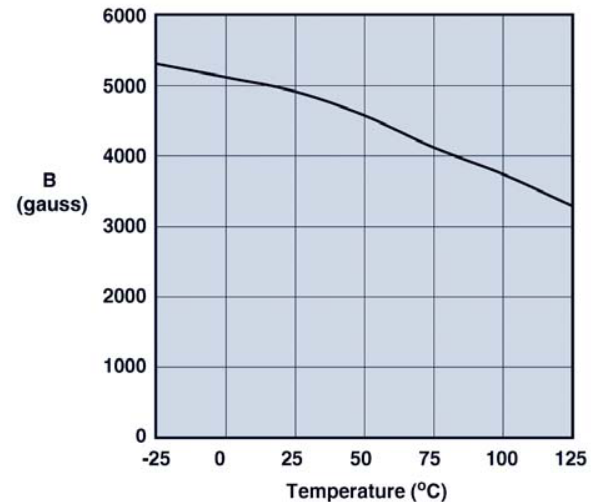
Measured on an 18/10/6mm toroid using the Clarke Hess 258 VAW at 100°C

Power Loss Density vs. Temperature



Measured on an 18/10/6mm toroid using the Clarke Hess 258 VAW.

Flux Density vs. Temperature



Measured on an 18/10/6mm toroid at 10 kHz and H=5 oersted.