M20

Material

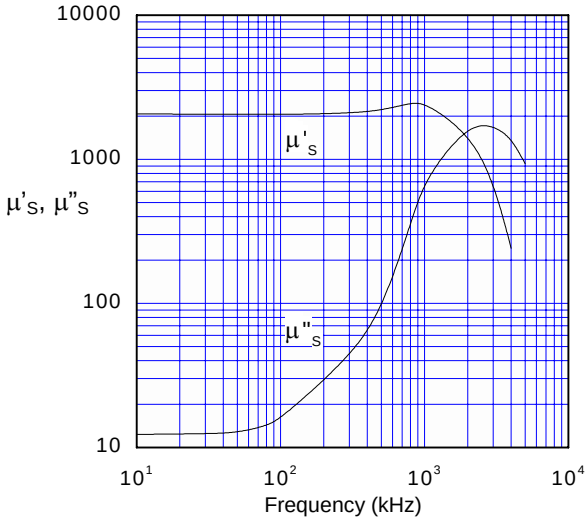
An MnZn ferrite with high saturation for high flux power applications for frequencies up to 200 kHz and also for inductive applications, including RFID transponders.

Specifications

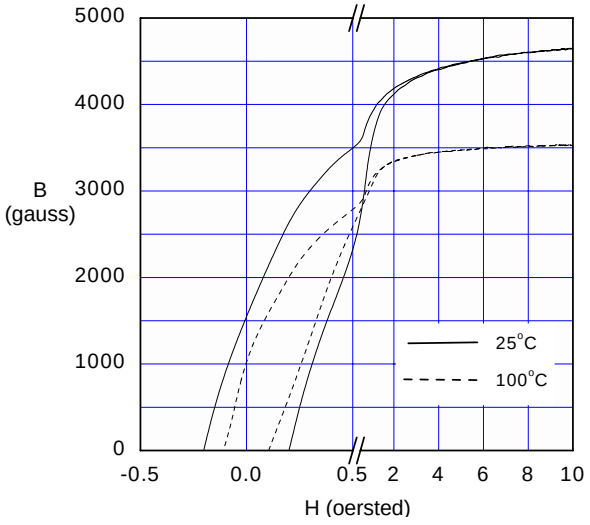
Property	Unit	Symbol	Standard Test Conditions	Value
Initial Permeability		μ_i	10 kHz; <1 gauss	2000 ± 20%
Saturation Flux Density	gauss	B_S	10 oersted	≈ 4700
Residual Flux Density	gauss	B_r		≈ 1500
Coercive Force	oersted	H_C		≈ 0.2
Loss Factor	10^{-6}	$Tan\delta/\mu_i$	0.1 MHz; 1 gauss	≤ 15
Temperature Coefficient of Initial Permeability (20-70°C)	%/°C			≈ 1.0
Power Loss Density	mW/cc	Pv	25 kHz; 2000 gauss; 25°C 25 kHz; 2000 gauss; 100°C	≤165 ≤100
Volume Resistivity	Ω cm	ρ		≈ 10^2
Curie Temperature	°C	T_C		≥ 210

Note: values are typical and based on measurements of a standard toroid (≥ 4.7g/cm^3) at 25 °C

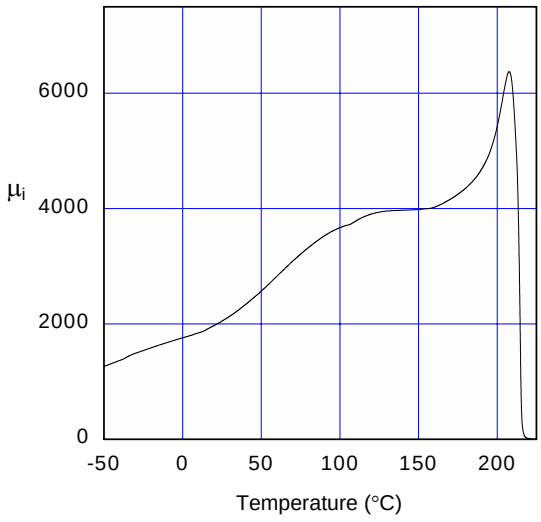
Complex Permeability vs. Frequency



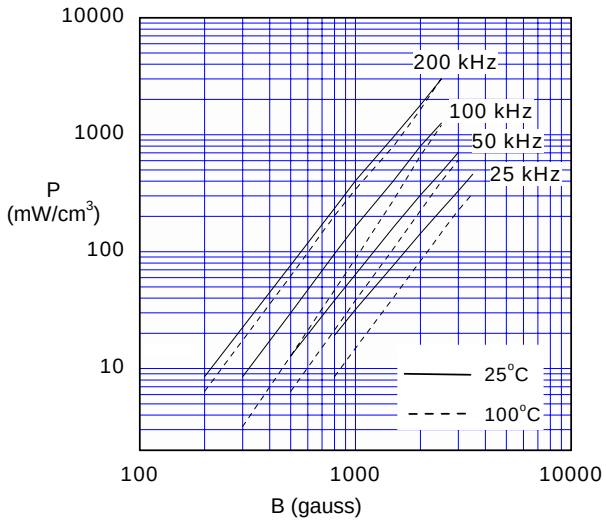
B – H Loop



Initial Permeability vs. Temperature



Power Loss Density vs. Flux Density



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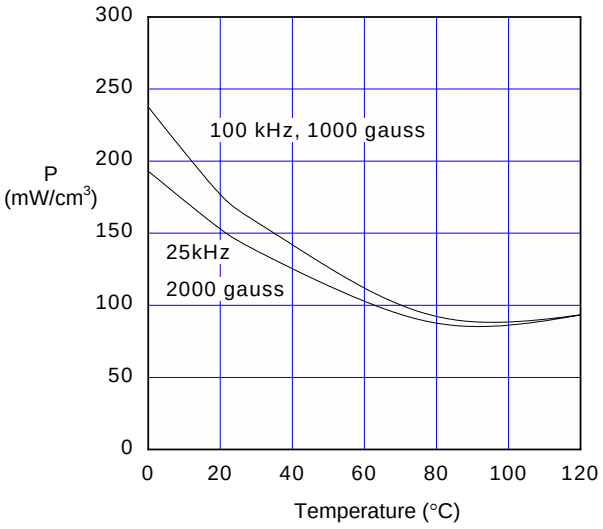
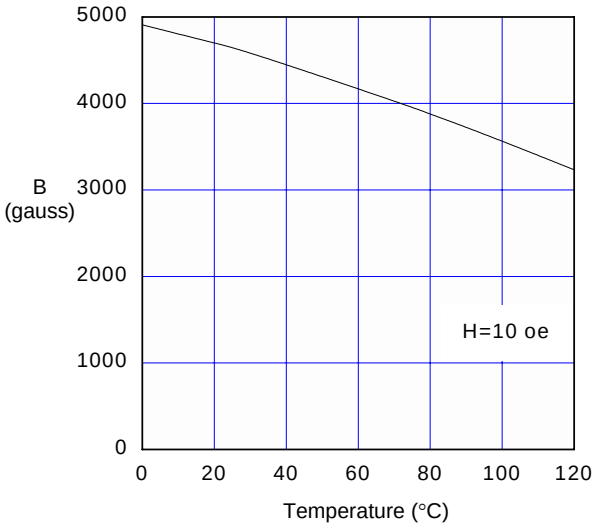
Power Loss Density vs. Temperature



Flux Density vs. Temperature



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