



NATIONAL MAGNETICS GROUP, INC.

MANUFACTURERS OF MAGNETIC AND ADVANCED MATERIALS

AFFILIATE: TCI CERAMICS, INC.

M100

Material

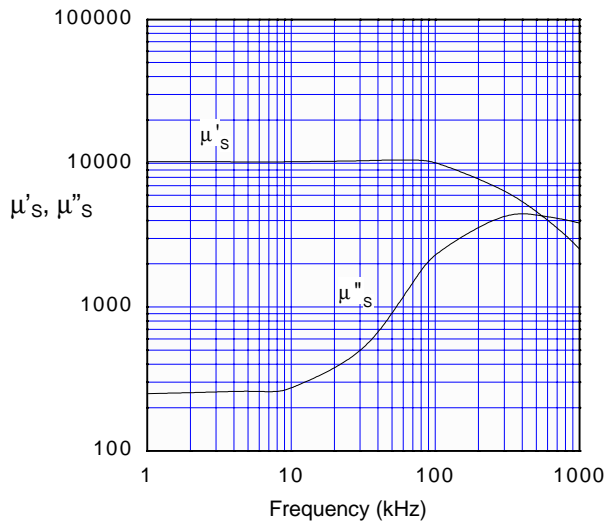
A high permeability MnZn ferrite designed for a range of applications including broadband and pulse transformers, common-mode chokes and inductors.

Specifications

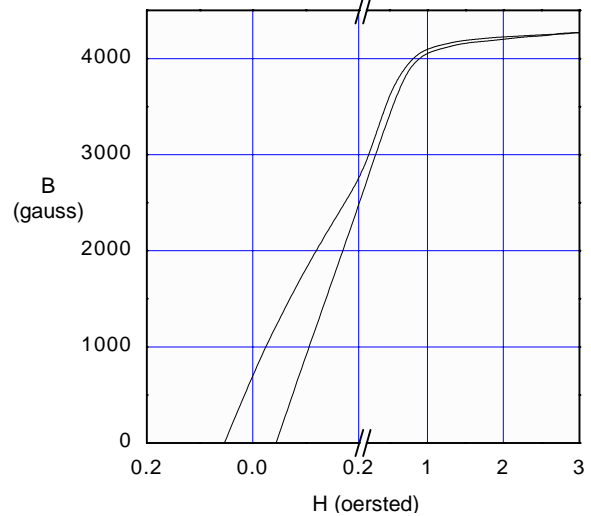
| Property | Unit | Symbol | Standard Test Conditions | Value |
|---|-------------|--------------------------|------------------------------|-----------------|
| Initial Permeability | | μ_i | Frequency=10 kHz; B<10 gauss | 10000 \pm 30% |
| Saturation Flux Density | gauss | B_s | H=5 oersted | \approx 4200 |
| Residual Flux Density | gauss | B_r | | \approx 800 |
| Coercive Force | oersted | H_c | | \approx 0.05 |
| Loss Factor | 10^{-6} | $\text{Tan}\delta/\mu_i$ | Frequency=30 kHz; B=1 gauss | \leq 10 |
| Temperature Coefficient of Initial Permeability (20-70°C) | %/°C | | | \leq 0.5 |
| Volume Resistivity | Ω cm | ρ | | \approx 20 |
| Curie Temperature | °C | T_c | | \geq 135 |

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

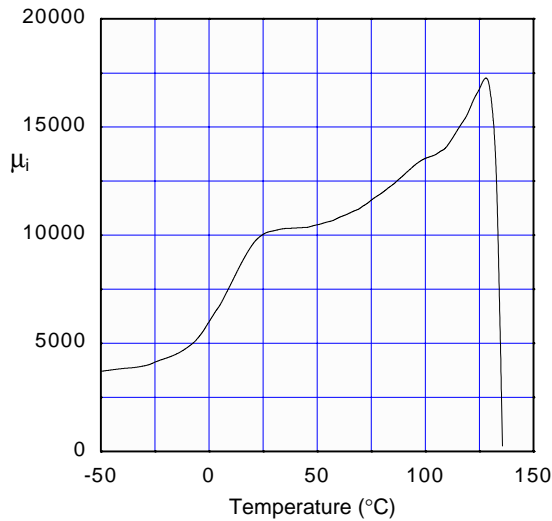
Complex Permeability vs. Frequency



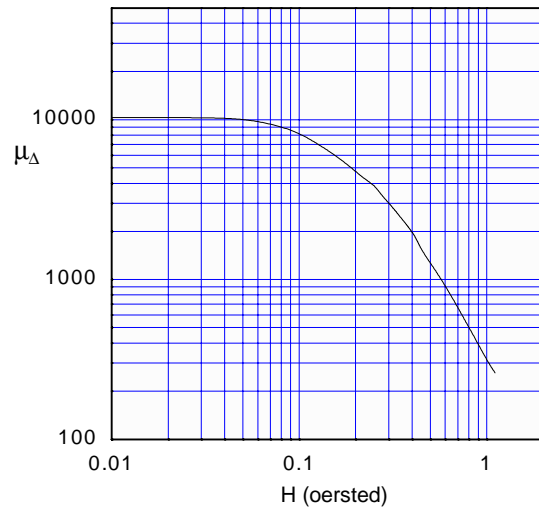
B - H Loop



Initial Permeability vs. Temperature



Incremental Permeability vs. Field Strength



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