



NATIONAL MAGNETICS GROUP, INC.

MANUFACTURERS OF MAGNETIC AND ADVANCED MATERIALS

AFFILIATE: TCI CERAMICS, INC.

M2

Material

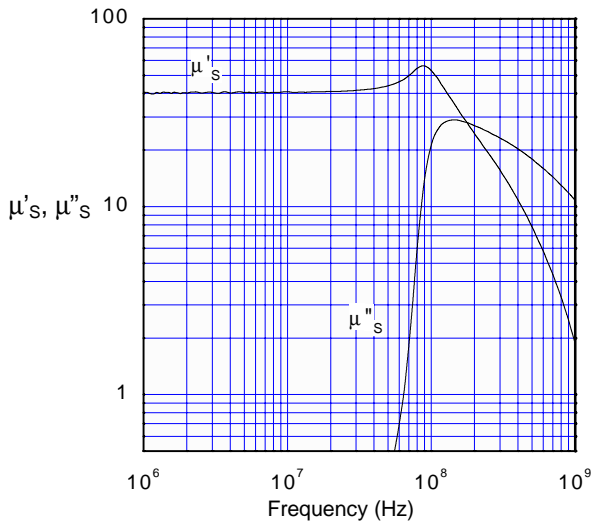
A permivar NiZn ferrite designed for high frequency applications (up to 50 MHz) including broadband transformers, antennas and high frequency, high Q inductors.

Specifications

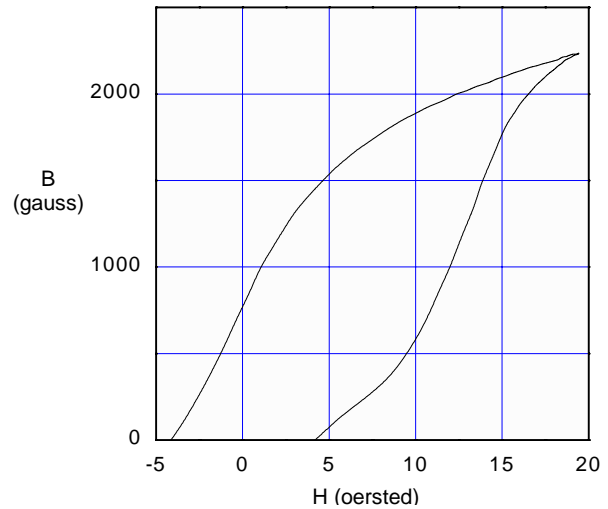
| Property | Unit | Symbol | Standard Test Conditions | Value |
|---|---------------------|-----------------------------|------------------------------|----------------|
| Initial Permeability | | μ_i | Frequency=10 kHz; B<10 gauss | $40 \pm 20\%$ |
| Saturation Flux Density | gauss | B_s | H=20 oersted | ≈ 2300 |
| Residual Flux Density | gauss | B_r | | ≈ 800 |
| Coercive Force | oersted | H_c | | ≈ 4 |
| Loss Factor | 10^{-6} | $\text{Tan} \delta / \mu_i$ | Frequency=50 MHz; B=1 gauss | ≤ 150 |
| Temperature Coefficient of Initial Permeability (20-70°C) | %/°C | | | ≤ 0.05 |
| Volume Resistivity | $\Omega \text{ cm}$ | ρ | | $\approx 10^7$ |
| Curie Temperature | °C | T_c | | ≥ 450 |

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

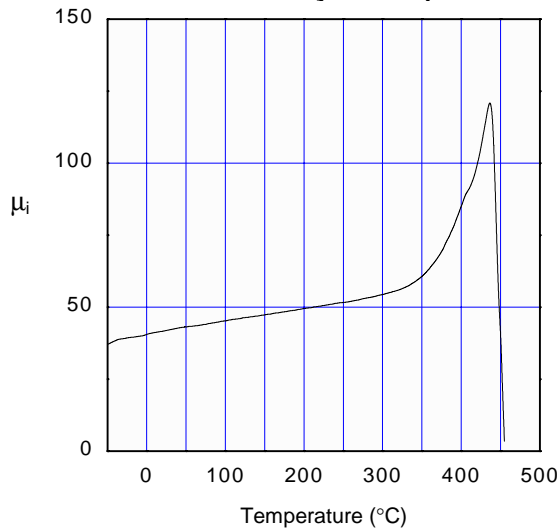
Complex Permeability vs. Frequency



B – H Loop



Initial Permeability vs. Temperature



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