

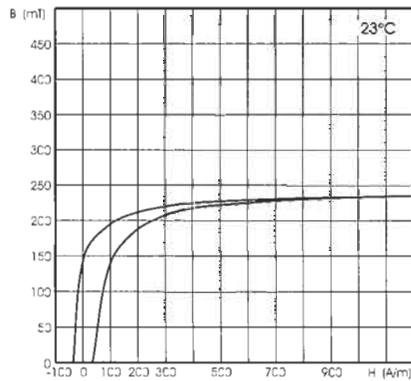
NICKEL-ZINC FERRITE FOR PROFESSIONAL AND INDUSTRIAL APPLICATIONS

FF1 Material

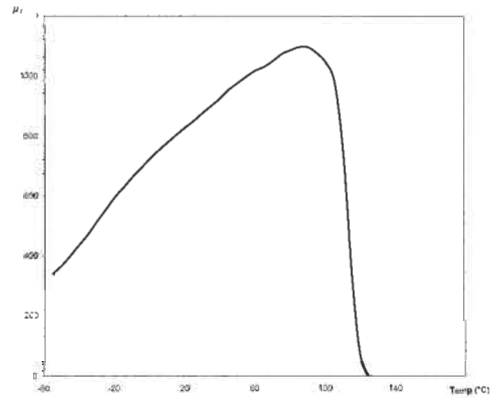
FF1 material is a high permeability Nickel-Zinc ferrite specially formulated for high inductance at low frequencies in broadband applications without having the dielectric constant of Manganese-Zinc ferrites. It can be used in broadband applications into the GHz region. It also features very high volume resistivity. FF1 is available in a variety of toroidal, multi-aperture, bead cores, coilforms, and bobbins.

Parameter	Symbol	Unit	Standard Test Conditions	Value
Initial Permeability (Nominal)	μ_i	—	B<0.1mT 10kHz 25°C	1500 ± 20%
Saturation Flux Density (typical)	B_{sat}	mT	H=1200 A/m =15 Oe 25°C, 100°C	230
Residual Flux Density (typical)	B_r	mT	H \rightarrow 0 (from near Saturation) 10kHz 25°C	175
Coercive force (typical)	H_c	A/m	B \rightarrow 0 (from near Saturation) 10kHz 25°C	30
Relative Loss Factor (maximum)	Tan δ/μ_i	10 ⁻⁶	B<0.1mT 100kHz 25°C	140
Curie Temperature (minimum)	T_c	°C	B<0.1mT 1kHz	95
Normalized Impedance	Z	Ω	100 MHz	—
Volume Resistivity (typical)	ρ	Ω -cm	1V/cm 25°C	5x 10 ⁶

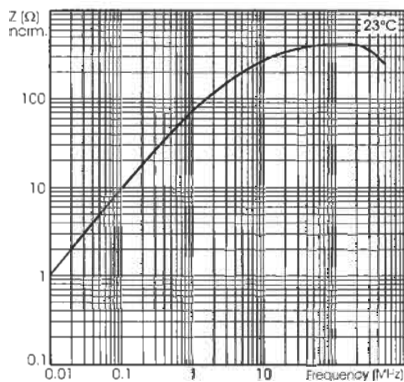
Dynamic Magnetization (B-H) Loop



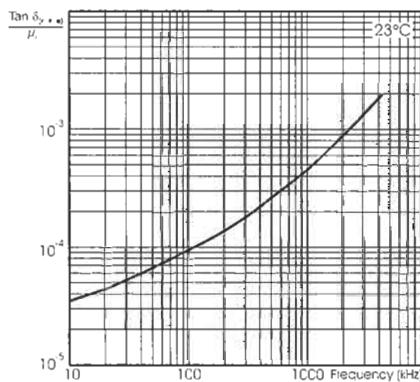
Initial Permeability vs. Temperature



Normalized Impedance vs. Frequency



Relative Loss Factor vs. Frequency



Complex Permeability vs. Frequency

