A high frequency NiZn ferrite developed for a range of inductive applications up to 25 MHz. This material is also used in EMI applications for suppression of noise frequencies above 200 MHz. Excellent stability characteristics.

Strong magnetic fields or excessive mechanical stresses may result in irreversible changes in permeability and losses.

Available in 61 material:
EMI Suppression Beads
Beads On Leads
SM beads
Wound Beads
Multi-Aperture Cores
Round Cable Snap-Its
Toroids
Rods
Antenna/RFID
Rods
Round EMI Suppression Cores

61 Material Characteristics

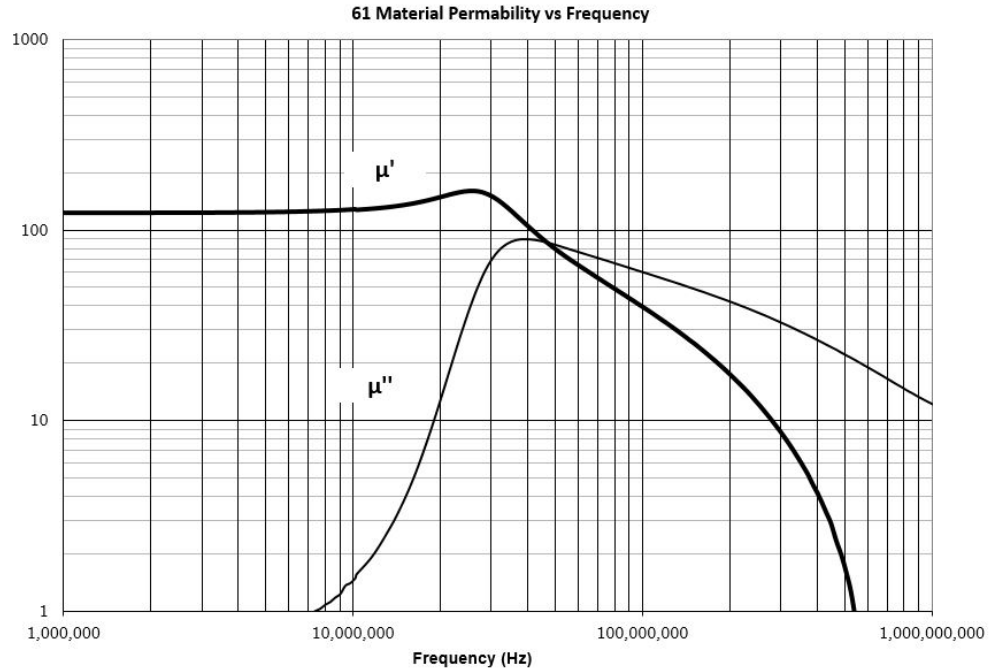
Property	Unit	Symbol	Value
Initial Permeability @ B < 10 gauss		μ_i	125
Flux Density @ Field Strength	Gauss Oersted	B H	2500 15
Residual Flux Density	Gauss	B_r	1000
Coercive Force	Oersted	H_c	1.2
Loss Factor @ Frequency	10^{-6} MHz	Tan δ/ μ_i	10 10
Temperature Coefficient of Initial Permeability (20 -70°C)	%/°C		.10
Curie Temperature	°C	T_c	>300

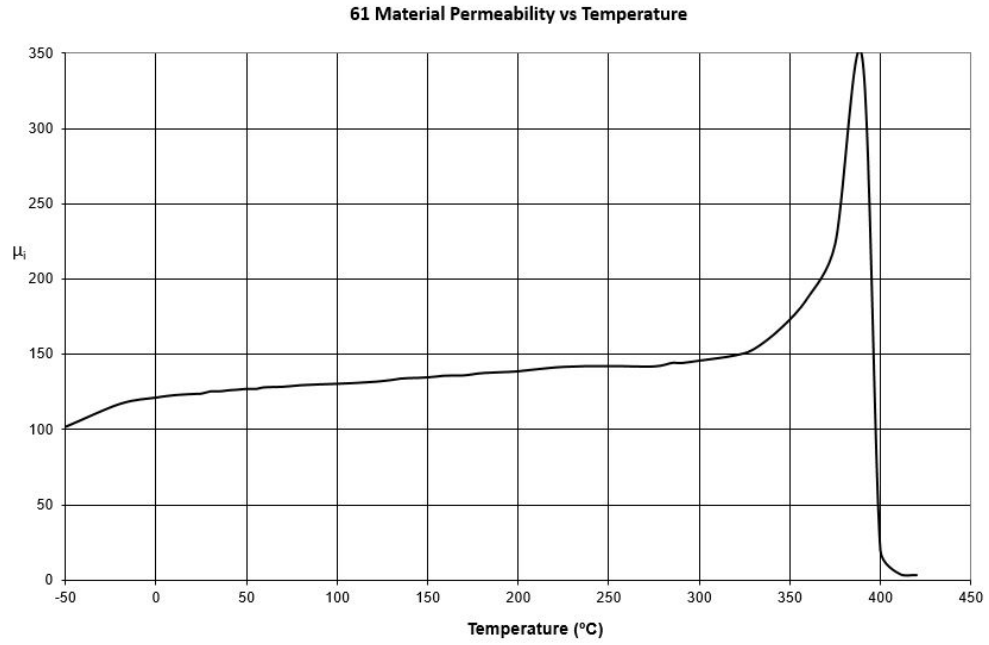
Resistivity	ohm-cm	ρ	1×10^{8}

**** Characteristic curves are measured on standard Toroids (18/10/6 mm) at 25°C and 10 kHz unless otherwise indicated. Impedance characteristics are measured on standard shield beads (3.5/1.3/6.0 mm) unless otherwise indicated.

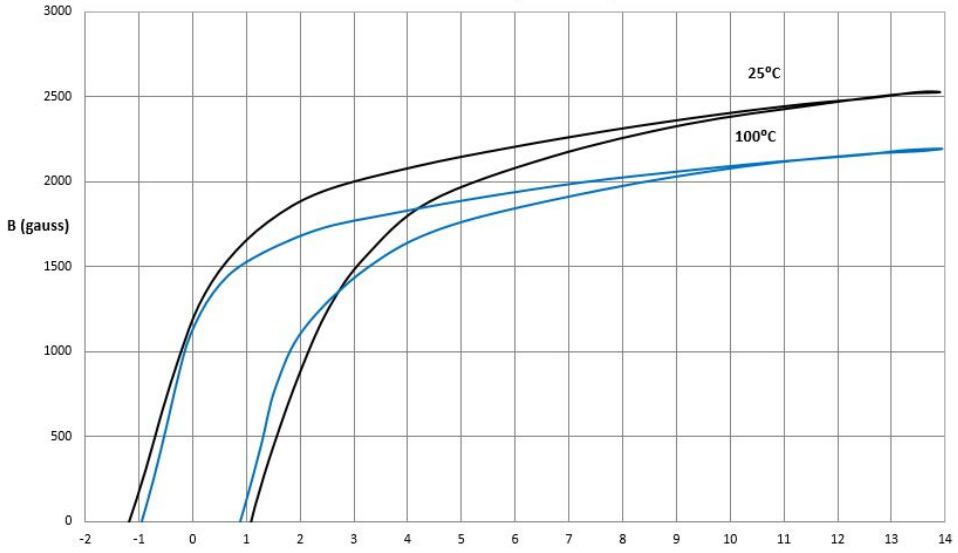
Material Safety Data Sheet (MSDS)

Click here to download Complex Permeability vs. Frequency (CSV)



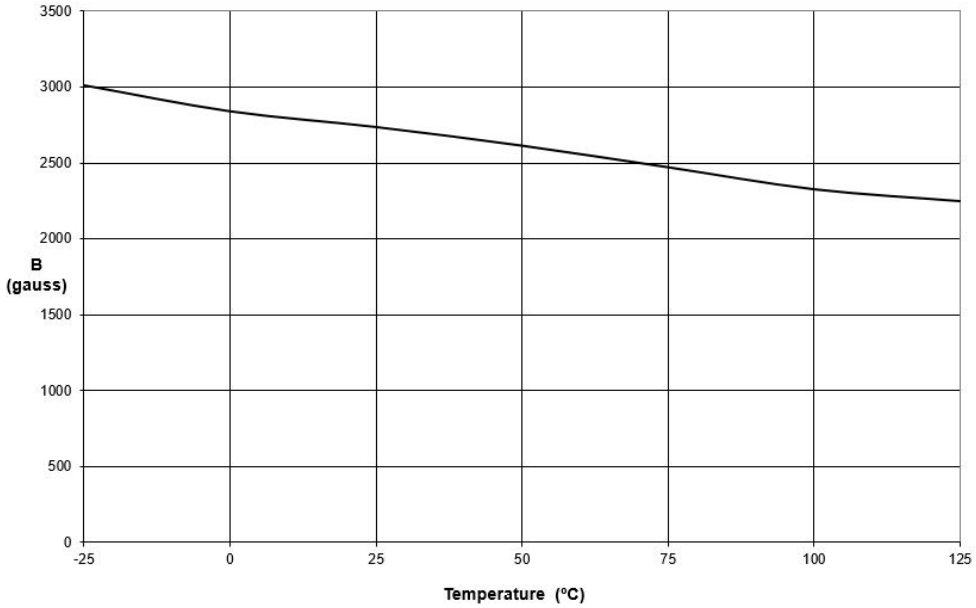


61 Material Hysterisis Loop

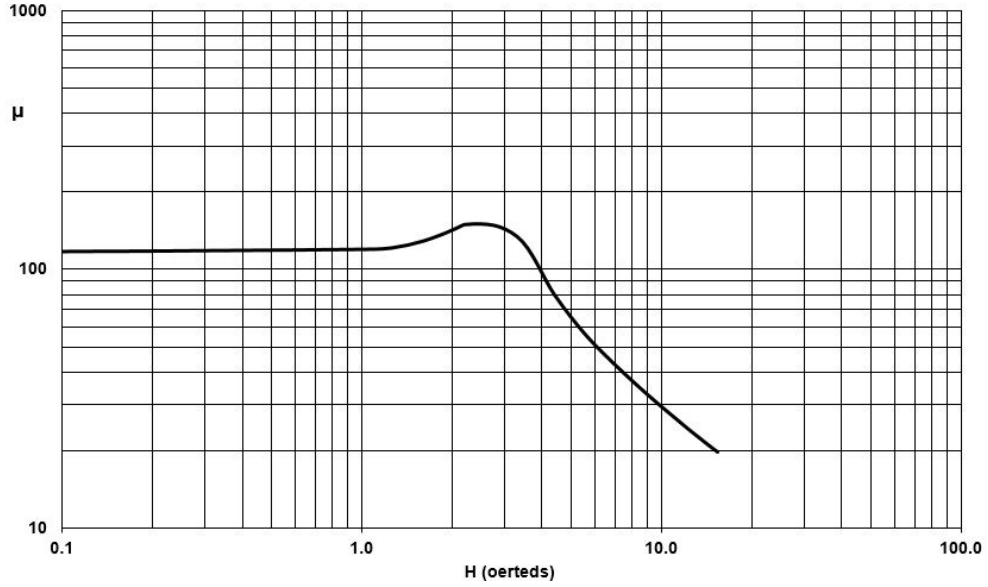


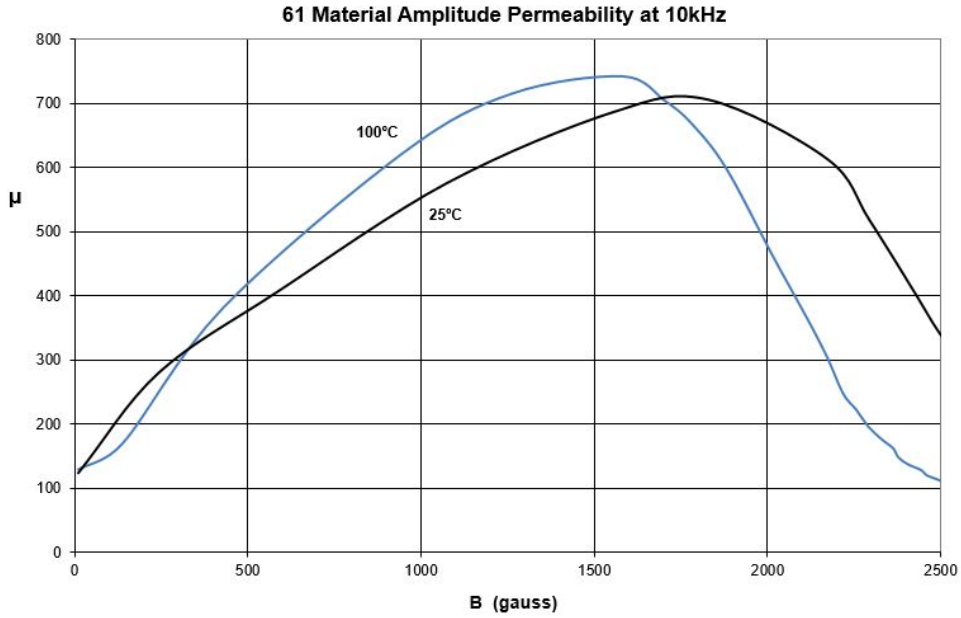
Measured on an 18/10/6mm toroid @10kHz

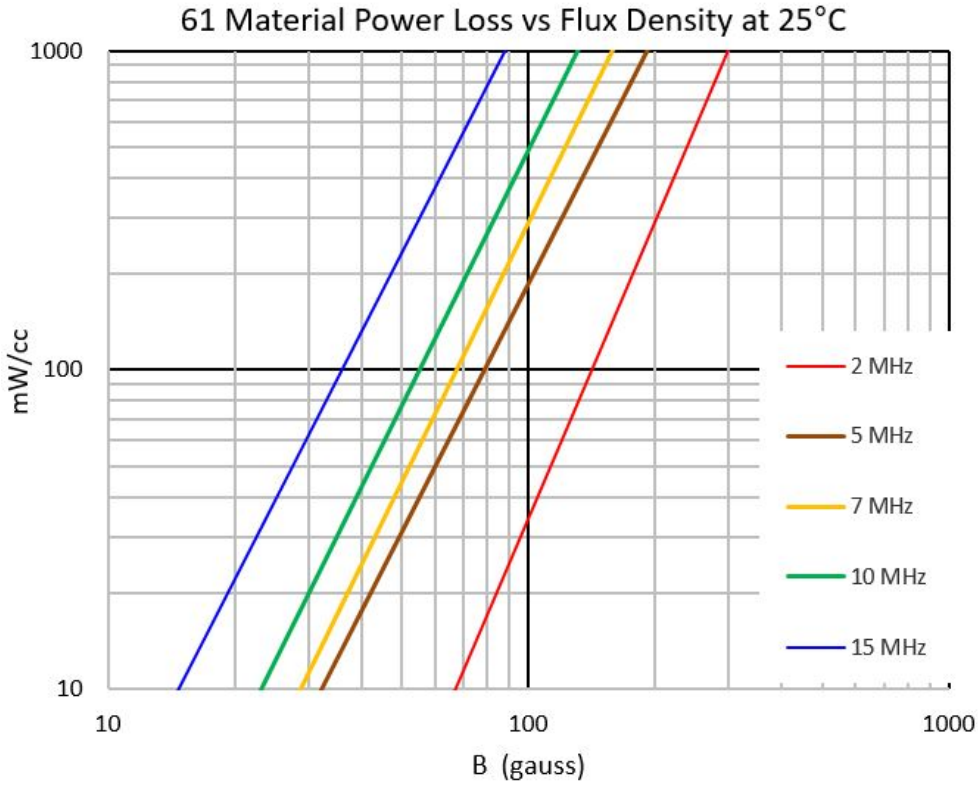
61 Material Flux Density vs Temperature



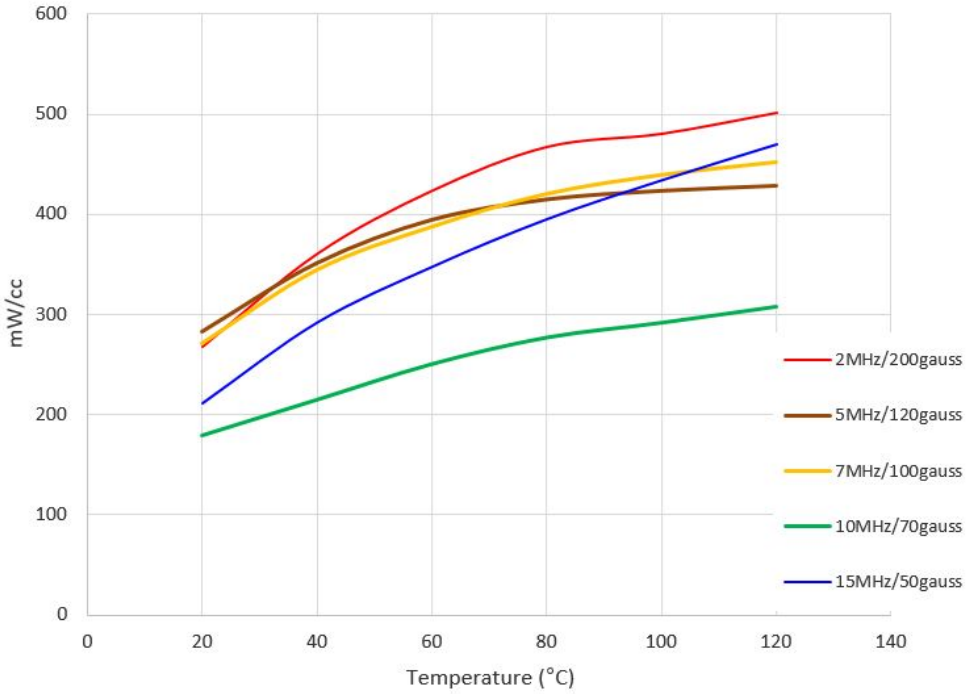
61 Material Incremental Permeability vs Field Strength



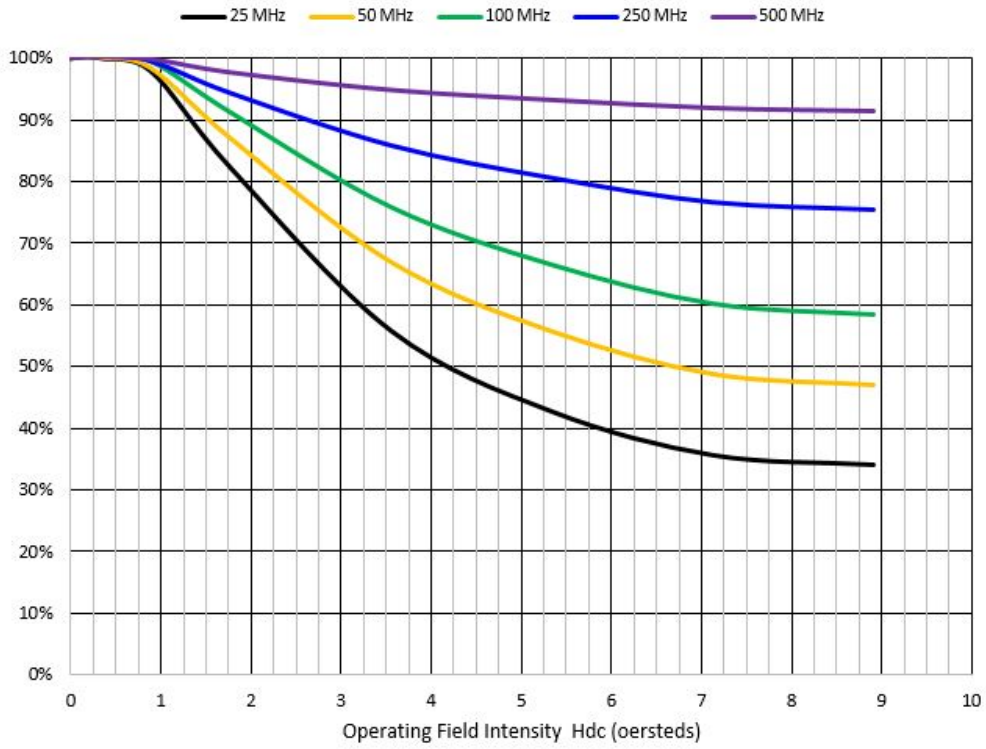

61 Material Amplitude Permeability at 10kHz
800
700
600
500
400
300
200
100
0
μ
100°C
25°C
0
500
1000
1500
2000
2500
B (gauss)

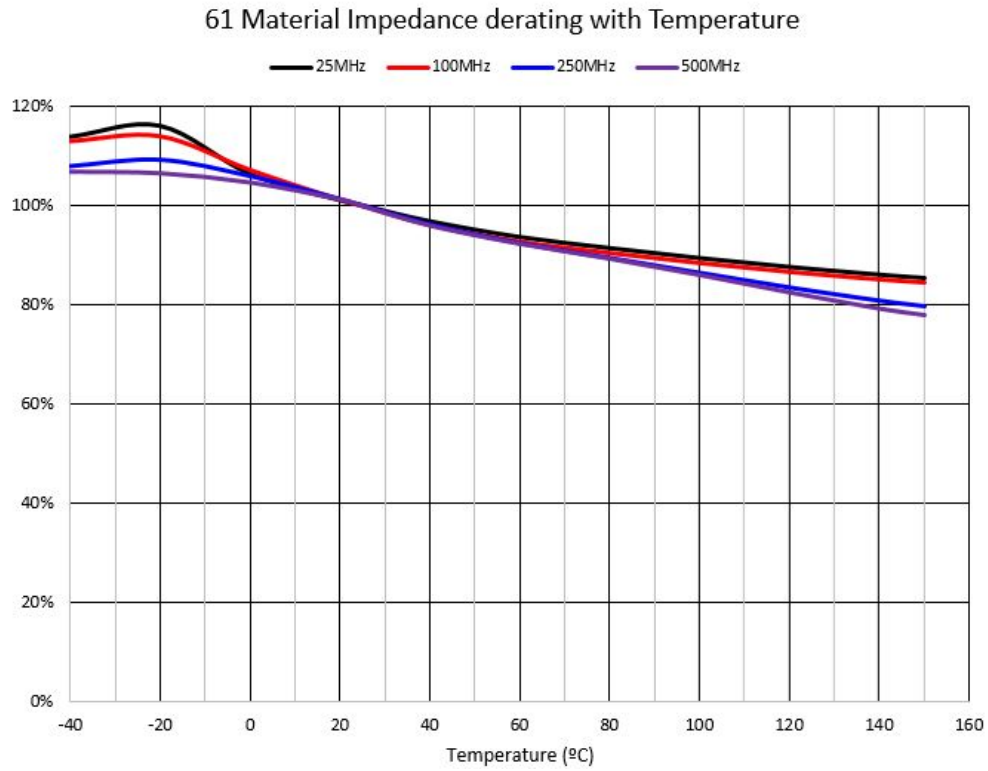

61 Material Power Loss vs Flux Density at 25°C
1000
100
10
mW/cc
2 MHz
5 MHz
7 MHz
10 MHz
15 MHz
10
100
1000
B (gauss)

61 Material Power Loss vs Temperature



61 Material Impedance derating with applied DC bias





Click here to download 61 Material Power Loss Density vs. Flux Density at 25°C

Ferrite Material Constants

Specific Heat	0.25 cal/g/°C
Thermal Conductivity	3.5 - 4.5 mW/cm-°C
Coefficient of Linear Expansion	8 - $10x10^{-6}$/°C
Tensile Strength	4.9 kgf/mm^2
Compressive Strength	42 kgf/mm^2
Young's Modulus	$15x10^3 kgf/mm^2$
Hardness (Knoop)	650
Specific Gravity	≈4.7 g/cm^3

The above quoted properties are typical for Fair-Rite MnZn and NiZn ferrites.