



flexiBrute Ferrite Toroid Core 78-1

78 Material Characteristics:

Property	Unit	Symbol	Value
Initial Permeability @ B < 10 gauss		μ_i	2300
Flux Density @ Field Strength	gauss oersted	B H	4800 5
Residual Flux Density	gauss	B_r	1500
Coercive Force	oersted	H_c	0.20
Loss Factor @ Frequency	10^{-6} MHz	$\tan \delta/\mu_i$	4.5 0.1
Temperature Coefficient of Initial Permeability (20 -70°C)	%/°C		1.0
Curie Temperature	°C	T_c	>200
Resistivity	Ω cm	ρ	2×10^2

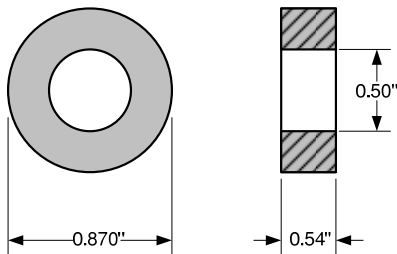
Introduction

This type 78 MnZn ferrite core is a higher frequency version of our most popular 77-1 ferrite core. It is also used for SSTCs and DRSSSTCs, but mostly for those requiring a core that can handle higher frequencies. These ferrite cores can be used up to at least 500kHz in gate transformer applications with the proper transformer design.

Typical Applications:

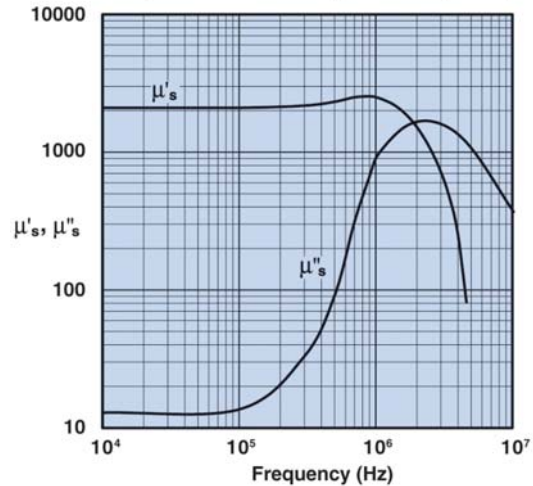
- Gate transformers (up to 500kHz)
- Current transformers (1000A+)
- Half-bridge and full-bridges
- Solid state Tesla Coils (SSTCs)
- DRSSSTCs
- Flyback drivers

Physical Dimensions

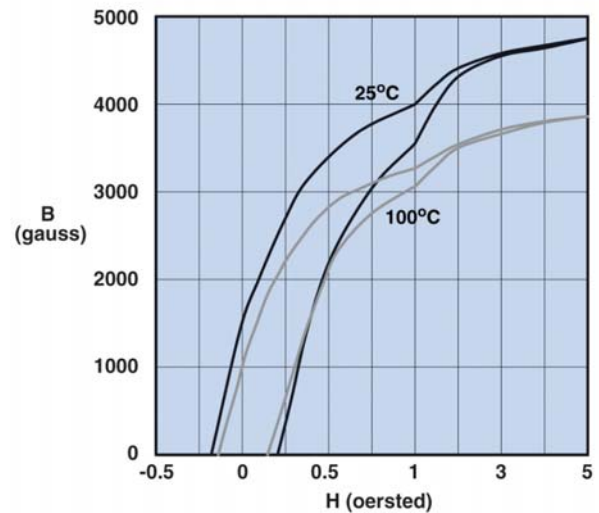


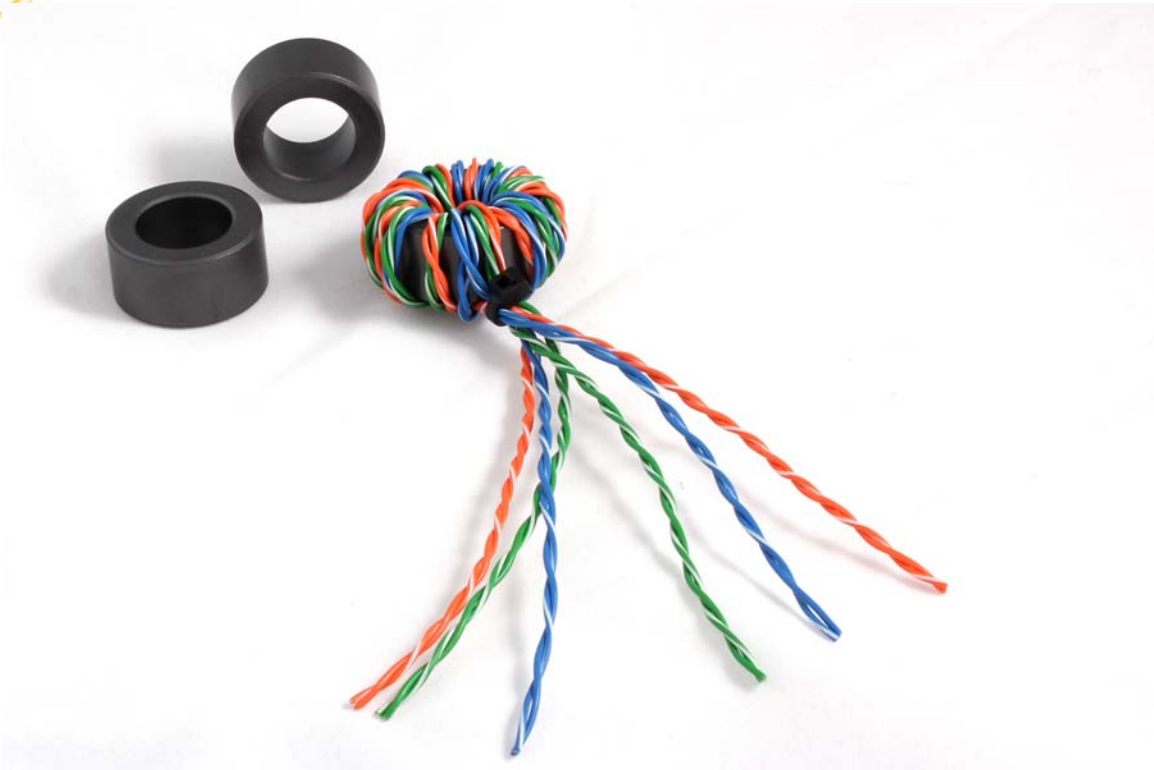
Electrical Properties	
A_L (nH)	$2795 \pm 25\%$
A_e (cm ²)	0.52
$\Sigma l/A$ (cm ⁻¹)	10.30
l_e (cm)	5.40
V_e (cm ³)	2.83

Complex Permeability vs. Frequency



Hysteresis Loop





Typical Application – Gate Transformer using flexiBrute Ferrite Toroid Core 78-1