



flexiBrute Ferrite Toroid Core 77-1

77 Material Characteristics:

Property	Unit	Symbol	Value
Initial Permeability @ B < 10 gauss		μ_i	2000
Flux Density @ Field Strength	gauss oersted	B H	4900 5
Residual Flux Density	gauss	B_r	1800
Coercive Force	oersted	H_c	0.30
Loss Factor @ Frequency	10^{-6} MHz	$\tan \delta/\mu_i$	15 0.1
Temperature Coefficient of Initial Permeability (20 -70°C)	%/°C		0.7
Curie Temperature	°C	T_c	>200
Resistivity	Ω cm	ρ	1×10^2

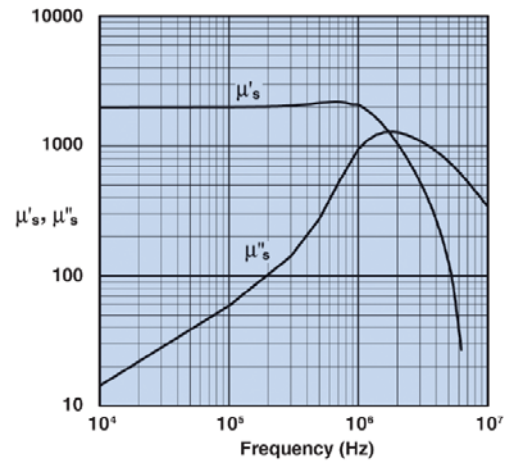
Introduction

This type 77 MnZn ferrite core is our most popular ferrite core used in a wide range of high and low flux density inductive designs. It is primarily used as a gate transformer for SSTC and DRSSSTC applications, but can also be used in the design of current transformers as well. These cores are perfect for all low-to-medium powered SSTCs and DRSSSTCs. They work in most half-bridge and full-bridge configurations, including flyback drivers, up to a frequency of at least 350kHz.

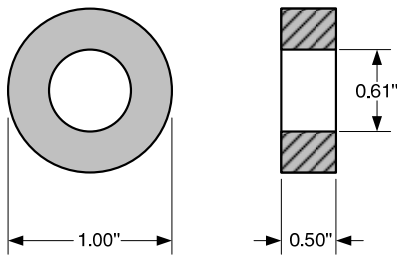
Typical Applications:

- Gate transformers (up to 350kHz)
- Current transformers (1000A+)
- Half-bridge and full-bridges
- Solid state Tesla Coils (SSTCs)
- DRSSSTCs
- Flyback drivers

Complex Permeability vs. Frequency

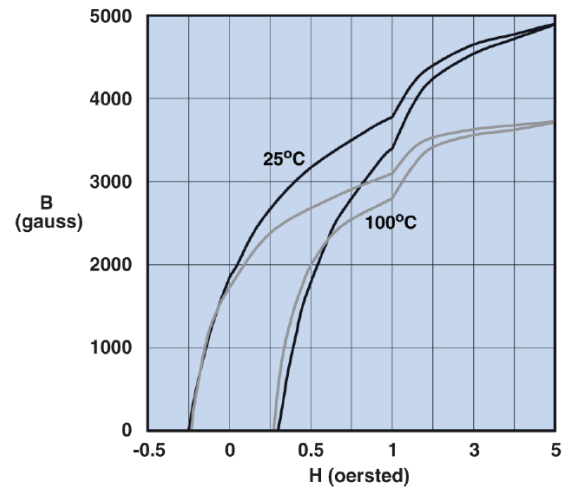


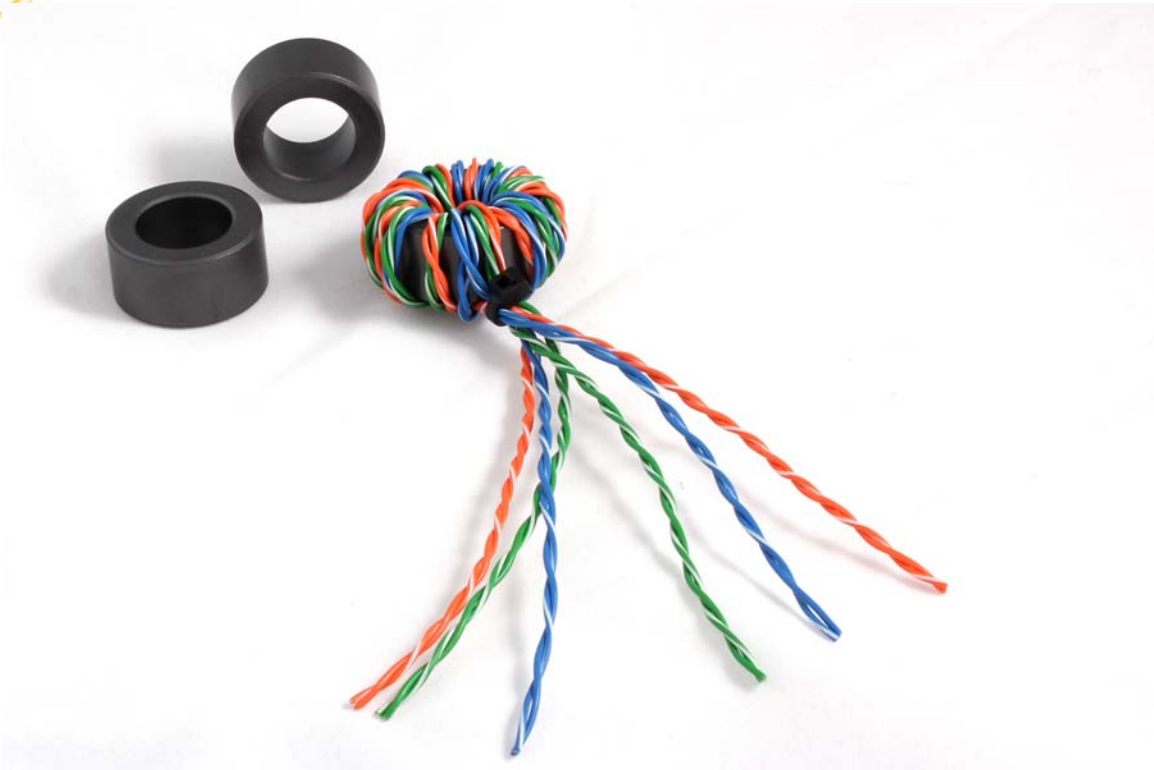
Physical Dimensions



Electrical Properties	
A_l (nH)	$2700 \pm 25\%$
A_c (cm ²)	0.62
$\sum l/A$ (cm ⁻¹)	10.00
l_c (cm)	6.20
V_c (cm ³)	3.80

Hysteresis Loop





Typical Application – Gate Transformer using flexiBrute Ferrite Toroid Core 77-1