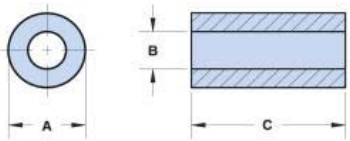


Part Number: 2631102002
Frequency Range: Lower & Broadband Frequencies 1-300 MHz (31 material)
Description: CS26/13/29-31 31 ROUND CABLE CORE
Application: Suppression Components
Where Used: Cable Component
Part Type: Round Cable EMI Suppression Cores
Preferred Part: ✓

Part Type Information

Mechanical Specifications

Weight: 55.00 (g)

View Chart Legend

Dim	mm	mm tol	nominal inch	inch misc.
A	25.90	±0.75	1.020	_
B	12.80	±0.25	0.505	_
C	28.60	±0.80	1.125	_
D	_	_	_	_
E	_	_	_	_
F	_	_	_	_
G	_	_	_	_
H	_	_	_	_
J	_	_	_	_
K	_	_	_	_

Land Patterns				
V	W (ref)	X	Y	Z
_	_	_	_	_

Winding Information			
Turns Tested	Wire Size	1st Wire Length	2nd Wire Length
_		_	_

Reel Information				
Tape Width mm	Pitch mm	Parts 7" Reel	Parts 13" Reel	Parts 14" Reel
_	_	_	_	_

Pkg Size
_

Connector Plate	
# Holes	# Rows
_	_

Cable Information			
Max Diameter	Max Dimension	Solid Equivalent	Flat Cable Cores
_	_	_	_

Electrical Specifications

Typical Impedance (Ω)	
1 MHz	31
5 MHz	79
10 MHz+	103
25 MHz+	156
100 MHz+	260
250 MHz	280

Electrical Properties	
H(Oe)	.22

Ferrite Material Constants

Specific Heat	0.25 cal/g/°C
Thermal Conductivity	$10x10^{-3}$ cal/sec/cm/°C
Coefficient of Linear Expansion	8 - $10x10^{-6}$/°C
Tensile Strength	4.9 kgf/mm²
Compressive Strength	42 kgf/mm²
Young's Modulus	$15x10^{3}$ kgf/mm²
Hardness (Knoop)	650
Specific Gravity	≈ 4.7 g/cm³

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

A MnZn ferrite designed specifically for EMI suppression applications from as low as 1 MHz up to 500 MHz. This material does not have the dimensional resonance limitations associated with conventional MnZn ferrite materials.

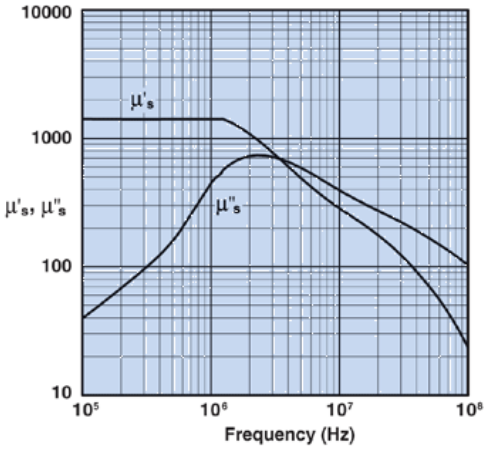
Round cable EMI suppression cores, round cable snap-its, flat cable EMI suppression cores, and flat cable snap-its are all available in 31 material.

31 Material Specifications:

Property	Unit	Symbol	Value
Initial Permeability @ B < 10 gauss		μ_i	1500
Flux Density @ Field Strength	gauss oersted	B H	3400 5
Residual Flux Density	gauss	B_r	2500
Coercive Force	oersted	H_c	0.35
Loss Factor @ Frequency	10^{-6} MHz	$\tan\delta/\mu_i$	20 0.1
Temperature Coefficient of Initial Permeability (20 -70°C)	%/°C		1.6

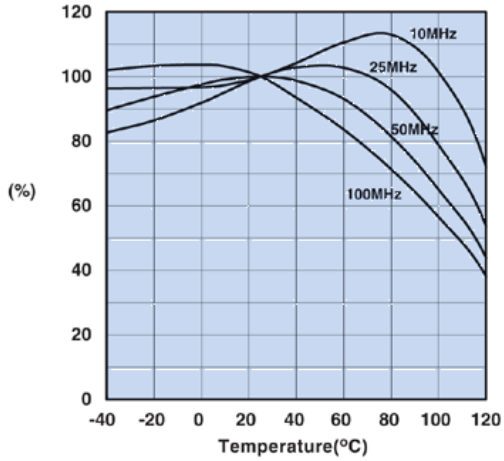
Curie Temperature	°C	T_c	>130
Resistivity	Ω cm	ρ	$3x10^3$

Complex Permeability vs. Frequency



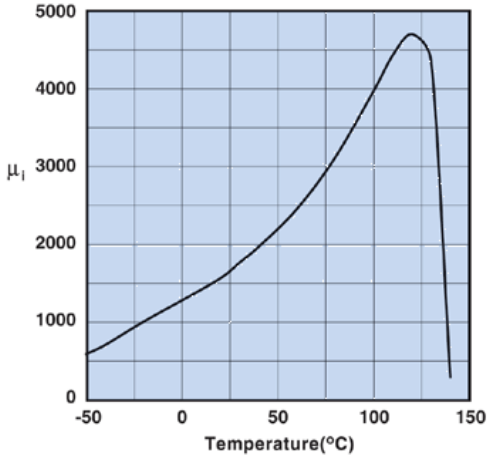
Measured on a 17/10/6mm toroid at 25°C using the HP 4284A and the HP 4291A.

Percent of Original Impedance vs. Temperature



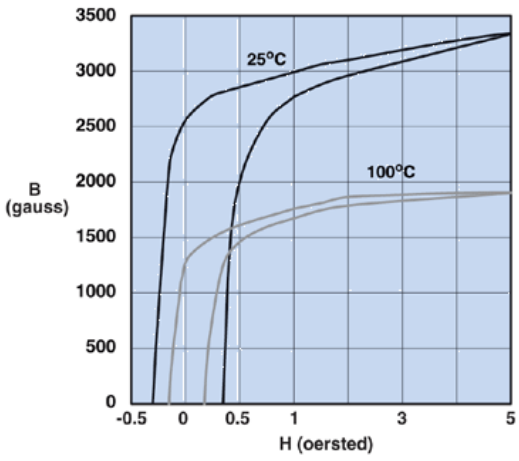
Measured on a 2631000301 using the HP4291A.

Initial Permeability vs. Temperature



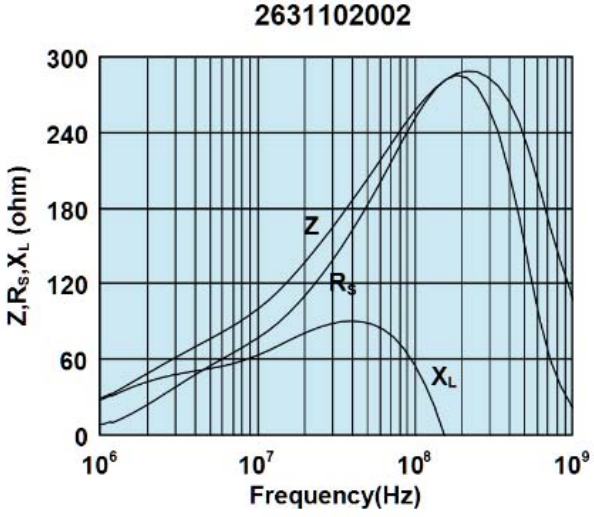
Measured on a 17/10/6mm toroid at 100kHz.

Hysteresis Loop

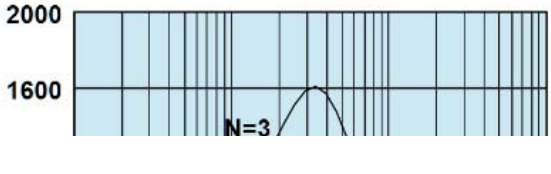


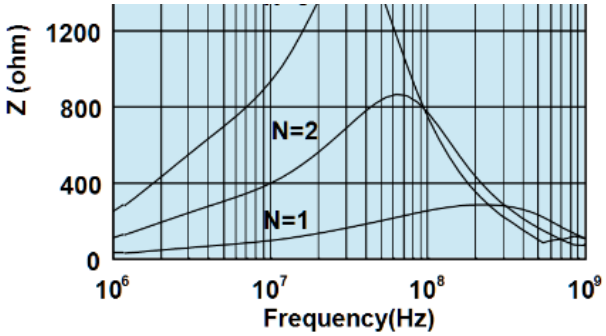
Measured on a 17/10/6mm toroid at 10kHz.

Impedance Curve



Impedance, reactance, and resistance vs. frequency.





Impedance vs. frequency with one, two, and three turns.