



Figure 1

Part Number: 0444167281
 Frequency Range: Broadband Frequencies 25-300 MHz (43 & 44 materials)
 Description: CSRA24/23/39-44-10 44 ROUND CABLE CORE ASSEMBLY
 Application: Suppression Components
 Where Used: Cable Component
 Part Type: Round Cable Snap-Its
 Preferred Part: ✓

Part Type Information

Mechanical Specifications

Weight: 33.00 (g)

[View Chart Legend](#)

Dim	mm	mm tol	nominal inch	inch misc.	Land Patterns					Winding Information				
					V	W (ref)	X	Y	Z	Turns Tested	Wire Size	1st Wire Length	2nd Wire Length	
A	23.70	-	0.933	-	-	-	-	-	-	-	-	-	-	-
B	10.15	-	0.400	-	Reel Information					Pkg Size				
C	39.40	-	1.550	-	Tape Width mm	Pitch mm	Parts 7" Reel	Parts 13" Reel	Parts 14" Reel	Connector Plate				
D	11.70	-	0.460	-	-	-	-	-	-	# Holes	# Rows			
E	-	-	-	-	Cable Information									
F	-	-	-	-	Max Diameter	Max Dimension	Solid Equivalent		Flat Cable Cores					
G	-	-	-	-	9.850	-	2643626402		-					
H	-	-	-	-	.388	-								
J	-	-	-	-										
K	-	-	-	-										

Electrical Specifications

Typical Impedance (Ω)	
10 MHz	77
25 MHz†	125
100 MHz†	210
250 MHz	260

Electrical Properties	
-	-

Ferrite Material Constants

Specific Heat	0.25 cal/g ^o C
Thermal Conductivity	10x10 ⁻³ cal/sec/cm ^o C
Coefficient of Linear Expansion	8 - 10x10 ⁻⁶ / ^o 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.

44 Material Specifications:

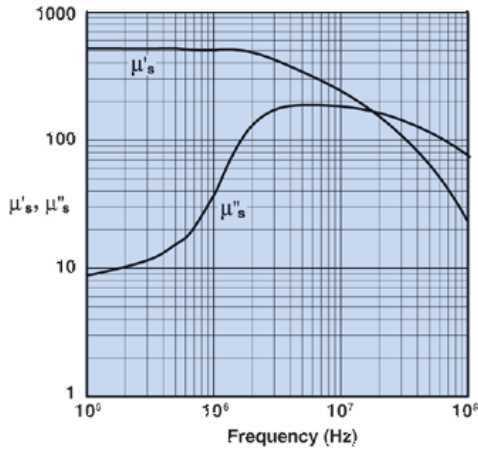
A NiZn ferrite developed to combine a high suppression performance, from 30 MHz to 500 MHz, with a very high dc resistivity.

SM beads, PC beads, wound beads, round cable snap-its, and connector EMI suppression plates are all available in 44 material.

Property	Unit	Symbol	Value
Initial Permeability @ B < 10 gauss		μ _i	500
Flux Density @ Field Strength	gauss oersted	B H	3000 10
Residual Flux Density	gauss	B _r	1100
Coercive Force	oersted	H _c	0.45

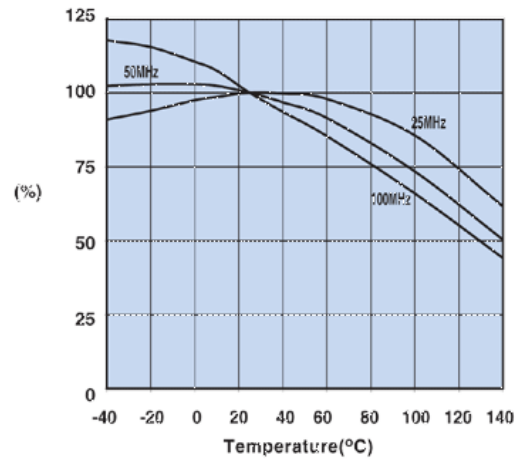
Loss Factor	10^{-5}	$\tan \delta/\mu_i$	125
Frequency	MHz		1.0
Temperature Coefficient of Initial Permeability (20 -70°C)	%/°C		0.75
Curie Temperature	°C	T_c	>160
Resistivity	Ω cm	ρ	1×10^9

Complex Permeability vs. Frequency



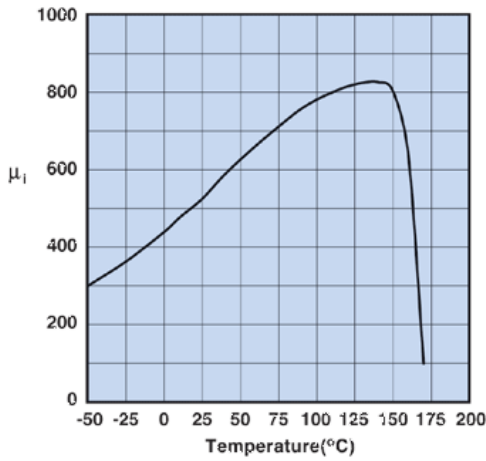
Measured on a 17/10/6mm toroid using the HP 4284A and the HP 4291A.

Percent of Original Impedance vs. Temperature



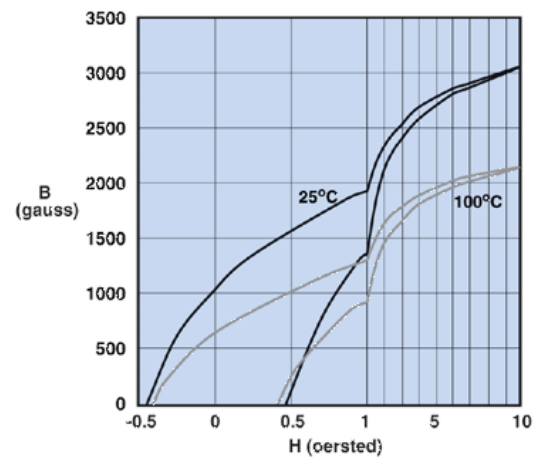
Measured on a 2644000301 using the HP4291A.

Initial Permeability vs. Temperature



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

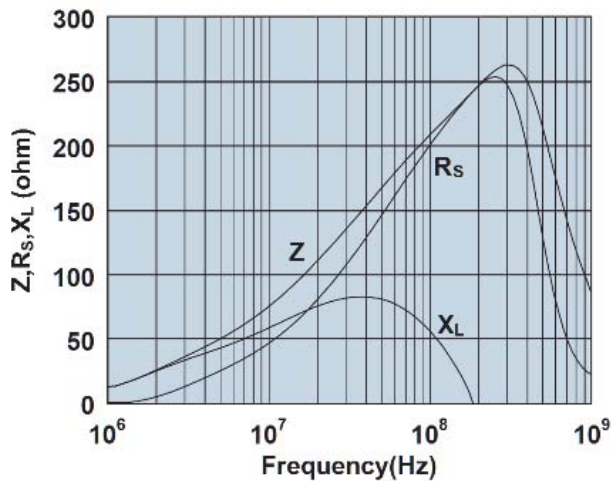
Hysteresis Loop



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

Impedance Curve

0444167281



Impedance, reactance, and resistance vs. frequency.

