

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.
A	23.70	_	0.933	_
B	10.15	_	0.400	_
C	39.40	_	1.550	_
D	11.70	_	0.460	_
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
9.850 .388	_	2643626402	_

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

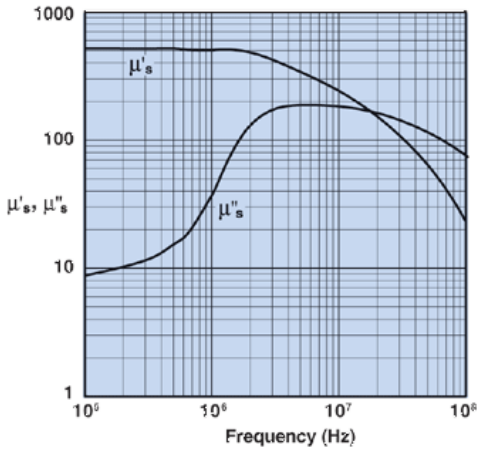
SM beads, PC beads, wound beads, round cable snap-its, and connector EMI suppression plates are all available in 44 material.

44 Material Specifications:

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

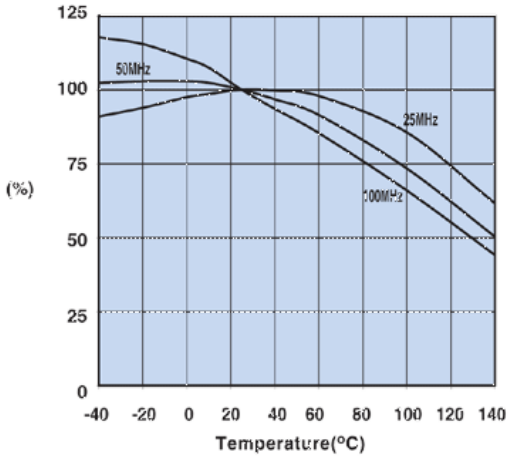
Loss Factor @ Frequency	10^{-6} MHz	$\tan\delta/\mu_i$	125 1.0
Temperature Coefficient of Initial Permeability (20 -70°C)	%/°C		0.75
Curie Temperature	°C	T_c	>160
Resistivity	Ω cm	ρ	$1x10^9$

Complex Permeability vs. Frequency



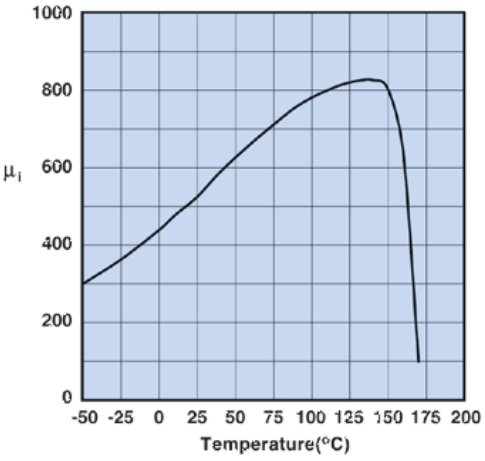
Measured on a 17/10/6mm toroid
using the HP 4284A and the HP 4291A.

Percent of Original Impedance vs. Temperature



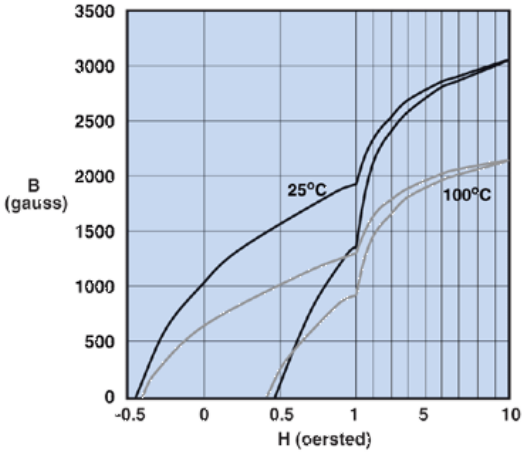
Measured on a 2644000301 using the HP4291A.

Initial Permeability vs. Temperature



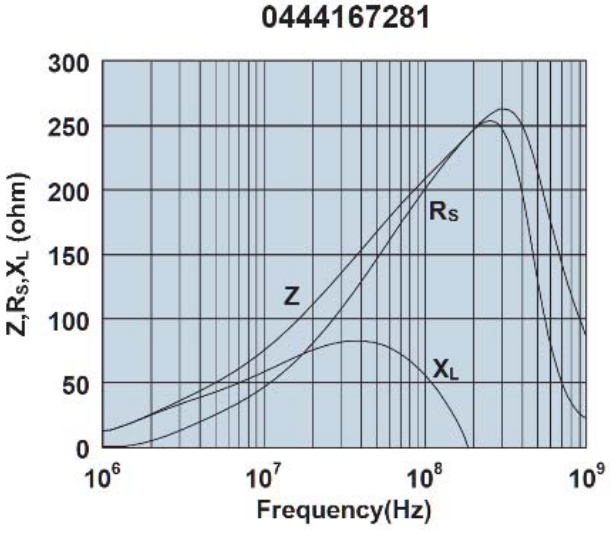
Measured on a 17/10/6mm toroid at 100kHz.

Hysteresis Loop



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

Impedance Curve



Impedance, reactance, and resistance vs. frequency.

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