

The information contained in this drawing is the sole property of Coil Winding Specialist Inc (CWS). Any reproduction in part or whole without written permission of CWS is prohibited.

R-050300-33

Features

Ferrite rods, bars, slugs, plates and tubes are primarily used as magnetic cores in radio antennas, chokes, inductors and filters. In radio antennas, ferrite rods are useful within the VLF spectrum to the VHF spectrum. Advantages are the small size, high Q and compactness carried.

Material 33 can be used at frequencies lower than 3 MHz for inductors, antennas and other open circuit applications.

Electrical Specifications

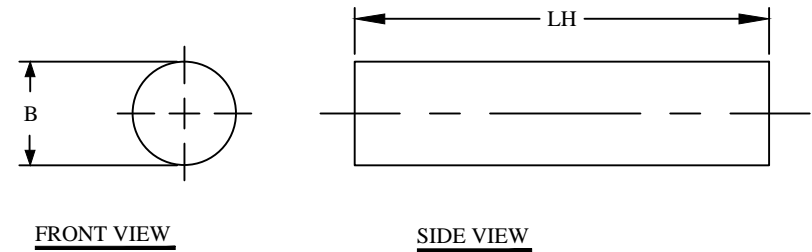
Item	Unit/Symbol	Condition	Value	Tol.
A_L	nH/N ²	@ 10 kHz, 100m	76	± 20%
Density	g/cm ³	N/A	4.8	Typ.
Initial Permeability	μ_0	Frequency = 10kHz, B < 10 Gauss	600	± 20%
Temp. Coeff. Of initial Permeability	%, °C	20 - 70 °C	≤ 0.1	Typ.
Saturation Flux Density	Gauss, B	Initial (B), oersted	2800	Typ.
	Gauss, H	@Field Strength (H), oersted	5	Typ.
Coercive Force	H _c	oersted	0.6	Typ.
Residual Flux Density	B _r	Gauss	1200	Typ.
Curie temperature	°C	T _c	≥ 150	Nom.
Volume Resistivity	$\Omega \cdot \text{cm}$, ρ	N/A	10 ²	Typ.
Loss Factor	10 ⁻⁶ , tan δ / μ	@ Frequency = 0.2 MHz, B=1 Gauss	< 25	Typ.
Recommended freq.	MHz	Frequency	0.01-400	Typ.

Dimensional Tolerances

	in	tol.	mm	tol.
B (Outer Diameter)	0.500	± 5%	12.70	± 5%
LH (Length)	3.000	± 2%	76.20	± 2%
Approximate Weight	46.33 g			

REVISION HISTORY

REV	ECN	DESCRIPTION	SIGN & DATE			
			BY	DATE	AP.	DATE
A		Production release	EO	6/4/13	JL	6/4/13



For additional detail, specifications and charts see:

http://www.bytemark.com/products/rod_new.html

http://www.bytemark.com/products/rod_customblocks.html

CODE IDENT	MFG. P/N	DESCRIPTION	ITEM NO.
PARTS LIST			
AUTOCAD	X	www.coilws.com www.cwsbytemark.com	CWSBYTEMARK 353 West Grove Ave. Orange, CA. 92865
SOLIDWORKS			
SIGN	DATE	Ferrite Rod Material 33, MnZn TITLE:	
DRAWN	EO 6/4/13		
CHECKED	JL 6/4/13		
ENGR.	JL 6/4/13		
APPR.	JL 6/4/13	SIZE DWG. NO.	REV
		B R-050300-33	A
DO NOT SCALE DRAWING		SCALE	SHEET 1 OF 1
		N/A	