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R-050500-61

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 61 can be used for antennas, filters, transformers, and emi supression. It can be used for inductive applications below 25 MHz, and BMI noise suppression past 200 MHz.

Electrical Specifications

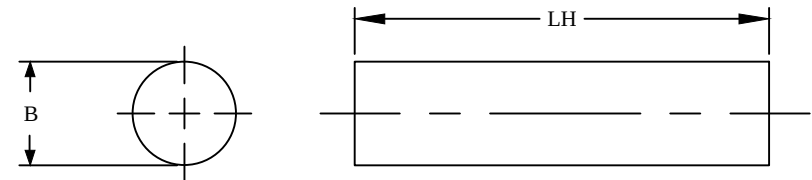
Item	Unit/Symbol	Condition	Value	Tol.
A_L	nH/N ²	@10 kHz, 250m	75	± 20%
Density	g/cm ³	N/A	4.8	Typ.
Initial Permeability	μ_0	Frequency = 10kHz, B<10 Gauss	125	± 20%
Temp. Coeff. Of initial Permeability	%, °C	20 - 70 °C	≤ 0.1	Typ.
Saturation Flux Density	Gauss, B	Initial (B), oersted	2400	Typ.
	Gauss, H	@Field Strength (H), oersted	15	Typ.
Coercive Force	H _c	oersted	1.9	Typ.
Residual Flux Density	B _r	Gauss	1000	Typ.
Curie temperature	°C	T _c	≥ 350	Nom.
Volume Resistivity	$\Omega \cdot \text{cm}$, ρ	N/A	10 ⁷	Typ.
Loss Factor	10 ⁻⁶ , tan δ / μ	@ Frequency = 2.5MHz, B=1 Gauss	< 40	Typ.
Recommended freq.	MHz	Frequency	0.1-25, > 200	Typ.

Dimensional Tolerances

	in	tol.	mm	tol.
B (Outer Diameter)	0.500	± 5%	12.70	± 5%
LH (Length)	5.000	± 2%	127.00	± 2%
Approximate Weight 77.22 g				

REVISION HISTORY

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



FRONT VIEW

SIDE VIEW

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	TITLE: Ferrite Rod Material 61, NiZn SIZE DWG. NO. B R-050500-61 SCALE N/A
SOLIDWORKS			
SIGN	DATE		
DRAWN	EO 6/4/13		
CHECKED	JL 6/4/13		
ENGR.	JL 6/4/13	REV A	SHEET 1 OF 1
APPR.	JL 6/4/13		

UNLESS OTHERWISE SPECIFIED
DIMENSIONING AND TOLERANCE PER ANSI Y14.5M
ALL DIMENSIONS ARE IN INCHES AND [MILLIMETERS].
TOLERANCE INCHES: .XXX=±.005 .XX=±.015 <X=±0'30"
TOLERANCE METRICS: .XXX=±.127 .XX=±.38 <X=±0'30"
ANGLE PROJECTION
DO NOT SCALE DRAWING