

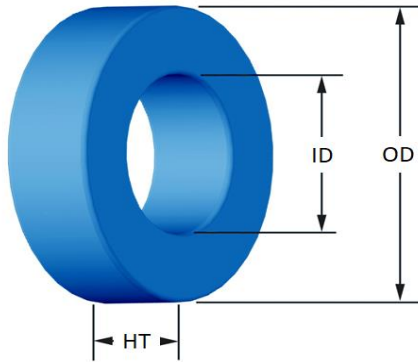


Part Number:

MS-092147-2

Revision:

2023-Dec-06



(If coated, Max./Min. includes coating)

		mm	in
OD	(nom. - bare core)	23.57	0.928
	(max.)	24.28	0.956
ID	(nom. - bare core)	14.40	0.567
	(min.)	13.77	0.542
HT	(nom. - bare core)	8.89	0.350
	(max.)	9.70	0.382
Mass	(approximate)	13	grams
Magnetic Dimensions	A_e - Eff. Mag. Cross Section	0.388	cm ²
	L_e - Eff. Mag. Path Length	5.88	cm
	V_e - Eff. Core Volume	2.28	cm ³
	W_A - Min. Eff. Window Area	1.49	cm ²
	s_a - Surface Area	21.8	cm ²
	mlt - mean length per turn	3.68	cm
Inductance	μ_i (reference)	147	
	A_L value (nominal)	124	nH/N ²
	Test Winding	80 Turns	AWG# 26
	Frequency	10k	Hz
	Voltage on Agilent 4284A	0.14	V
	AL tolerance	±8%	
Core Loss	$\text{Core Loss (mW/cm}^3\text{)} = \frac{a}{B_{pk}^3} + \frac{b}{B_{pk}^{2.3}} + \frac{c}{B_{pk}^{1.65}} + d \cdot B_{pk}^2 \cdot f^2$		
	where B_{pk} expressed in gauss, f expressed in hertz, and:		
	$a=1.394E+10$, $b=1.034E+09$, $c=1.244E+07$, $d=4.007E-14$		
	B_{pk}	1000	G
	frequency	50 k	Hz
DC Saturation	$\% \mu_i \frac{1}{a + b \cdot H^c} + d$		
	where H expressed in oersteds, and:		
	$a=1.000E-02$, $b=4.732E-05$, $c=1.539$, $d=0.000$		
	H_{dc}	40	Oe
	Percent Initial Perm(nom.)	42.0	%
Coating/Pkg	Coating Type:	Blue Epoxy	
	Voltage Breakdown (min.)	1000	Vrms
	Limit	0.1 mA, 5 s	
	Package Quantity	900 Pcs/Box	

Winding Table	Wire Size	AWG	10	12	14	16	18	20	22	24	26	28	30
		mm	2.500	2.000	1.600	1.250	1.000	0.800	0.630	0.500	0.400	0.315	0.250
	Single Layer	Turns	12	15	20	25	32	40	51	64	80	101	126
	Full Winding	Rdc(Ω)	1.4 m	2.9 m	6.1 m	12.1 m	24.6 m	49.0 m	99.3 m	198.2 m	394.0 m	791.0 m	1.6
	Full Winding	Turns	12	19	29	45	69	107	166	257	397	615	952
		Rdc(Ω)	1.4 m	3.6 m	8.8 m	21.8 m	53.1 m	131.0 m	323.2 m	795.8 m	2.0	4.8	11.9

