

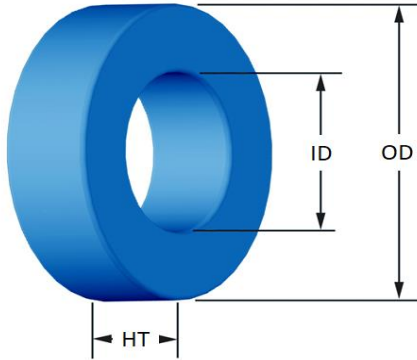


Part Number:

MS-171014-2

Revision:

2023-Dec-18



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

		mm	in
OD	(nom. - bare core)	43.40	1.709
	(max.)	44.30	1.744
ID	(nom. - bare core)	26.40	1.039
	(min.)	25.50	1.004
HT	(nom. - bare core)	16.20	0.638
	(max.)	17.10	0.673
Mass	(approximate)	69	grams
Magnetic Dimensions	A _e - Eff. Mag. Cross Section	1.31	cm ²
	L _e - Eff. Mag. Path Length	10.74	cm
	V _e - Eff. Core Volume	14.1	cm ³
	WA - Min. Eff. Window Area	5.11	cm ²
	sa - Surface Area	72.0	cm ²
	mlt - mean length per turn	6.58	cm
Inductance	μ _i (reference)	14	
	A _L value (nominal)	21	nH/N ²
	Test Winding	70 Turns	AWG# 22
	Frequency	10k	Hz
	Voltage on Agilent 4284A	0.41	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=1.000E+06, b=1.814E+08, c=3.377E+06, d=2.628E-14		
	B _{pk}	300	G
	frequency	100 k	Hz
	Core Loss (nominal)	180	mW/cm ³
DC Saturation	$\% \mu_i = \frac{1}{a + b \cdot H^c} + d$		
	where H expressed in oersteds, and:		
	a=1.000E-02, b=9.443E-07, c=1.533, d=0.000		
	H _{dc}	200	Oe
	Percent Initial Perm(nom.)	75.9	%
	Percent Initial Perm(min.)	70.4	%
Coating/Pkg	Coating Type:	Blue Epoxy	
	Voltage Breakdown (min.)	1000 Vrms	
	Limit	0.1 mA, 5 s	
	Package Quantity	120 Pcs/Box	

Winding Table	Wire Size	AWG	8	10	12	14	16	18	20	22	24	26	28
		mm	3.150	2.500	2.000	1.600	1.250	1.000	0.800	0.630	0.500	0.400	0.315
	Single Layer	Turns	19	24	31	39	49	62	77	97	121	151	189
	Full Winding	Turns	27	41	64	99	153	237	367	569	880	1,362	2,109
		Rdc(Ω)	2.6 m	5.2 m	10.6 m	21.2 m	42.4 m	85.3 m	168.4 m	337.5 m	669.5 m	1.3	2.6
		Rdc(Ω)	3.7 m	8.8 m	21.9 m	53.8 m	132.3 m	326.0 m	802.8 m	2.0	4.9	12.0	29.5

