

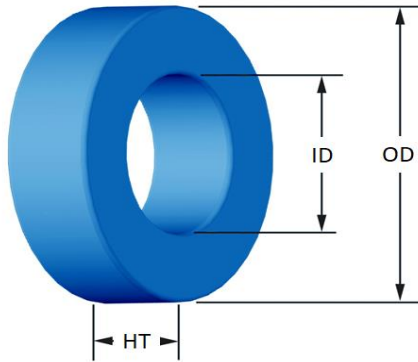


Part Number:

MS-130125-2

Revision:

2023-Dec-06



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

		mm	in
OD	(nom. - bare core)	33.02	1.300
	(max.)	33.83	1.332
ID	(nom. - bare core)	19.94	0.785
	(min.)	19.30	0.760
HT	(nom. - bare core)	10.67	0.420
	(max.)	11.61	0.457

Mass	(approximate)	32	grams
	A _e - Eff. Mag. Cross Section	0.672	cm ²
	L _e - Eff. Mag. Path Length	8.15	cm
	V _e - Eff. Core Volume	5.48	cm ³
	W _A - Min. Eff. Window Area	2.93	cm ²
	s _a - Surface Area	40.1	cm ²

Inductance	μ _i (reference)	125	
	A _L value (nominal)	127	nH/N ²
	Test Winding	70 Turns	AWG# 22
	Frequency	10k	Hz
	Voltage on Agilent 4284A	0.21	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
	Core Loss (nominal)	276	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=7.884E-06, c=1.883, d=0.000		
	H _{dc}	40	Oe
	Percent Initial Perm(nom.)	55.0	%
	Percent Initial Perm(min.)	46.4	%

Coating/Pkg	Coating Type:	Blue Epoxy
	Voltage Breakdown (min.)	1000 Vrms
	Limit	0.1 mA, 5 s
	Package Quantity	336 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	14	18	22	29	36	46	58	73	91	114	142
		Rdc(Ω)	1.4 m	2.8 m	5.4 m	11.4 m	22.4 m	45.6 m	91.5 m	183.1 m	363.0 m	723.2 m	1.4
Full Winding	Turns	15	24	37	57	88	136	211	326	504	780	1,208	
		Rdc(Ω)	1.5 m	3.7 m	9.1 m	22.3 m	54.9 m	134.9 m	332.8 m	817.6 m	2.0	4.9	12.2

