

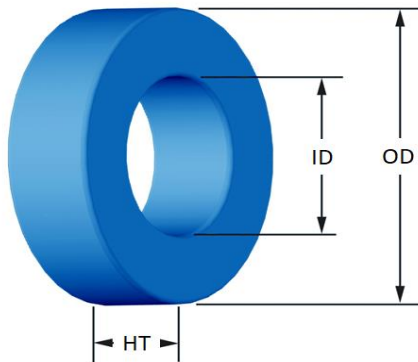


Part Number:

MS-135090-2

Revision:

2023-Dec-06



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

		mm	in
OD	(nom. - bare core)	34.29	1.350
	(max.)	35.10	1.382
ID	(nom. - bare core)	23.37	0.920
	(min.)	22.56	0.888
HT	(nom. - bare core)	8.89	0.350
	(max.)	9.83	0.387
Mass	(approximate)	24	grams
Magnetic Dimensions	A_e - Eff. Mag. Cross Section	0.454	cm ²
	L_e - Eff. Mag. Path Length	8.95	cm
	V_e - Eff. Core Volume	4.06	cm ³
	W_A - Min. Eff. Window Area	4.00	cm ²
	s_a - Surface Area	41.4	cm ²
	mlt - mean length per turn	4.35	cm
Inductance	μ_i (reference)	90	
	A_L value (nominal)	56	nH/N ²
	Test Winding	90 Turns	AWG# 22
	Frequency	10k	Hz
	Voltage on Agilent 4284A	0.18	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:		
	$a=7.890E+09$, $b=7.111E+08$, $c=8.980E+06$, $d=2.846E-14$		
	B_{pk}	1000	G
	frequency	50 k	Hz
	Core Loss (nominal)	323	mW/cm ³
DC Saturation	$\% \mu_i = \frac{1}{a + b \cdot H^c} + d$		
	where H expressed in oersteds, and:		
	$a=1.000E-02$, $b=3.994E-06$, $c=1.883$, $d=0.000$		
	H_{dc}	50	Oe
	Percent Initial Perm(nom.)	61.3	%
	Percent Initial Perm(min.)	52.9	%
Coating/Pkg	Coating Type:	Blue Epoxy	
	Voltage Breakdown (min.)	1000 Vrms	
	Limit	0.1 mA, 5 s	
	Package Quantity	350 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	16	21	27	34	43	54	68	85	107	134	167
	Full Winding	Turns	21	32	50	78	120	186	288	445	689	1,066	1,651
		Rdc(Ω)	1.4 m	3.0 m	6.1 m	12.2 m	24.6 m	49.1 m	98.4 m	195.6 m	391.5 m	779.8 m	1.5
		Rdc(Ω)	1.9 m	4.5 m	11.3 m	28.1 m	68.6 m	169.2 m	416.6 m	1.0	2.5	6.2	15.3

