

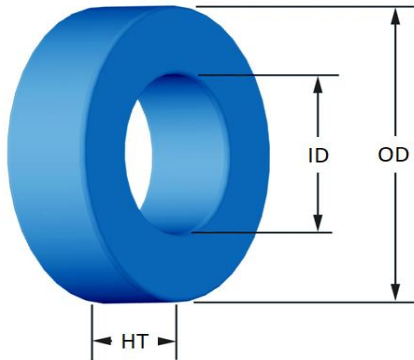


Part Number:

MS-199125-2

Revision:

2024-Jul-22



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

		mm	in
OD	(nom. - bare core)	50.80	2.000
	(max.)	51.69	2.035
ID	(nom. - bare core)	24.77	0.975
	(min.)	23.95	0.943
HT	(nom. - bare core)	20.83	0.820
	(max.)	21.72	0.855
Mass	(approximate)	180	grams
Magnetic Dimensions	A_e - Eff. Mag. Cross Section	2.65	cm ²
	L_e - Eff. Mag. Path Length	11.385	cm
	V_e - Eff. Core Volume	30.2	cm ³
	W_A - Min. Eff. Window Area	4.51	cm ²
	s_a - Surface Area	97.4	cm ²
	mlt - mean length per turn	8.32	cm
Inductance	μ_i (reference)	125	
	A_L value (nominal)	366	nH/N ²
	Test Winding	70 Turns	AWG# 20
	Frequency	10k	Hz
	Voltage on Agilent 4284A	0.82	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:		
	$a=1.000E-02$, $b=7.884E-06$, $c=1.883$, $d=0.000$		
	H_{DC}	40	Oe
Coating/Pkg	Coating Type:	Blue Epoxy	
	Voltage Breakdown (min.)	1000 Vrms	
	Limit	0.1 mA, 5 s	
	Package Quantity	48 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	17	22	29	36	46	58	72	91	114	142	177
		Rdc(Ω)	2.9 m	6.0 m	12.5 m	24.8 m	50.3 m	100.9 m	199.2 m	400.4 m	797.7 m	1.6	3.1
	Full Winding	Turns	24	36	56	87	135	209	324	502	777	1,202	1,860
		Rdc(Ω)	4.1 m	9.8 m	24.2 m	59.8 m	147.7 m	363.6 m	896.4 m	2.2	5.4	13.4	32.9

