

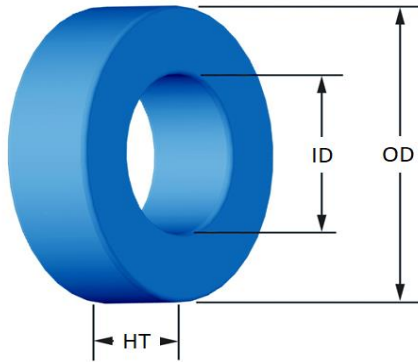


Part Number:

MS-200160-2

Revision:

2023-Dec-06



(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)	31.75	1.250
	(min.)	30.94	1.218
HT	(nom. - bare core)	13.46	0.530
	(max.)	14.35	0.565

Magnetic Dimensions	A_e - Eff. Mag. Cross Section	1.25	cm ²
	L_e - Eff. Mag. Path Length	12.733	cm
	V_e - Eff. Core Volume	15.9	cm ³
	W_A - Min. Eff. Window Area	7.52	cm ²
	s_a - Surface Area	88.2	cm ²
	mlt - mean length per turn	6.49	cm

Inductance	μ_i (reference)	160	
	A_L value (nominal)	195	nH/N ²
	Test Winding	70 Turns	AWG# 18
	Frequency	10k	Hz
	Voltage on Agilent 4284A	0.39	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
	Core Loss (maximum)	318	mW/cm ³

DC Saturation	$\% \mu_i = \frac{1}{a + b \cdot H^c} + d$		
	where H expressed in oersteds, and: $a=1.000E-02$, $b=4.439E-05$, $c=1.627$, $d=0.000$		
	H_{dc}	40	Oe
	Percent Initial Perm(nom.)	35.8	%
	Percent Initial Perm(min.)	29.3	%

Coating/Pkg	Coating Type:	Blue Epoxy
	Voltage Breakdown (min.)	1000 Vrms
	Limit	0.1 mA, 5 s
	Package Quantity	60 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	23	30	38	48	60	75	94	118	148	184	230
		Rdc(Ω)	3.1 m	6.4 m	12.8 m	25.8 m	51.2 m	101.9 m	203.0 m	405.4 m	808.6 m	1.6	3.2
	Full Winding	Turns	39	61	94	146	226	350	541	837	1,296	2,006	3,104
		Rdc(Ω)	5.2 m	12.9 m	31.7 m	78.4 m	193.0 m	475.3 m	1.2	2.9	7.1	17.4	42.9

