

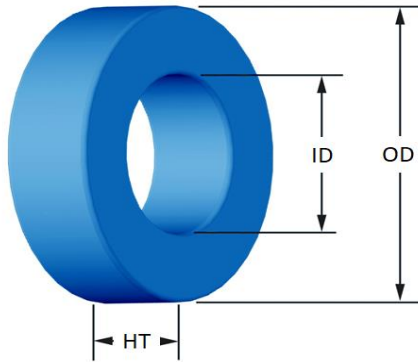


Part Number:

MS-141147-2

Revision:

2023-Dec-06



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

		mm	in
OD	(nom. - bare core)	35.81	1.410
	(max.)	36.63	1.442
ID	(nom. - bare core)	22.35	0.880
	(min.)	21.54	0.848
HT	(nom. - bare core)	10.46	0.412
	(max.)	11.28	0.444

Magnetic Dimensions	Mass (approximate)	36	grams
	A_e - Eff. Mag. Cross Section	0.678	cm ²
	L_e - Eff. Mag. Path Length	8.98	cm
	V_e - Eff. Core Volume	6.09	cm ³
	W_A - Min. Eff. Window Area	3.64	cm ²
	s_a - Surface Area	45.6	cm ²
Inductance	m_l - mean length per turn	4.84	cm
	μ_i (reference)	147	
	A_L value (nominal)	138	nH/N ²
	Test Winding	80 Turns	AWG# 22
	Frequency	10k	Hz
	Voltage on Agilent 4284A	0.24	V
Core Loss	AL tolerance	±8%	
	$\text{Core Loss (mW/cm}^3\text{)} = \frac{a}{B_{pk}^3} + \frac{b}{B_{pk}^{2.3}} + \frac{c}{B_{pk}^{1.65}} + d \cdot B_{pk}^2 \cdot f^2$		
	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	Core Loss (maximum)	318	mW/cm ³
	$\% \mu_i = \frac{1}{a + b \cdot H^c} + d$		
	where H expressed in oersteds, and: $a=1.000E-02$, $b=4.732E-05$, $c=1.539$, $d=0.000$		
	H_{DC}	40	Oe
	Percent Initial Perm(nom.)	42.0	%
	Percent Initial Perm(min.)	35.3	%
Coating/Pkg	Coating Type:	Blue Epoxy	
	Voltage Breakdown (min.)	1000	Vrms
	Limit	0.1 mA, 5 s	
	Package Quantity	315	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	15	20	25	32	41	52	65	81	102	128	159
		Rdc(Ω)	1.5 m	3.2 m	6.3 m	12.8 m	26.1 m	52.7 m	104.7 m	207.5 m	415.6 m	829.5 m	1.6
Full Winding	Turns	19	30	46	71	109	169	262	406	628	972	1,505	
		Rdc(Ω)	1.9 m	4.8 m	11.6 m	28.4 m	69.4 m	171.2 m	422.1 m	1.0	2.6	6.3	15.5

