

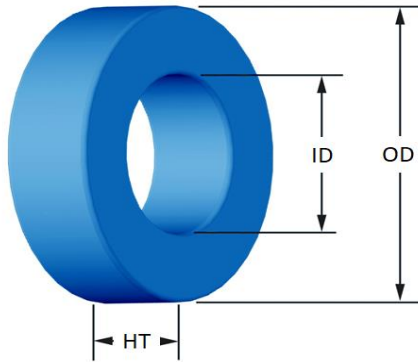


Part Number:

MS-292147-2

Revision:

2023-Dec-18



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

		mm	in
OD	(nom. - bare core)	74.10	2.917
	(max.)	75.20	2.961
ID	(nom. - bare core)	45.30	1.783
	(min.)	44.10	1.736
HT	(nom. - bare core)	35.00	1.378
	(max.)	36.20	1.425
Mass	(approximate)	540	grams
Magnetic Dimensions	A_e - Eff. Mag. Cross Section	4.94	cm ²
	L_e - Eff. Mag. Path Length	18.4	cm
	V_e - Eff. Core Volume	90.9	cm ³
	W_A - Min. Eff. Window Area	15.3	cm ²
	s_a - Surface Area	228	cm ²
	m_{lt} - mean length per turn	12.6	cm
Inductance	μ_i (reference)	147	
	A_L value (nominal)	505	nH/N ²
	Test Winding	100 Turns	AWG# 18
	Frequency	10k	Hz
	Voltage on Agilent 4284A	2.2	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:		
	$a=1.000E-02$, $b=4.732E-05$, $c=1.539$, $d=0.000$		
	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	12 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	35	44	55	69	87	109	136	170	212	264	329
	Full Winding	Turns	80	124	192	296	459	710	1,099	1,701	2,633	4,075	6,307
		Rdc(Ω)	20.7 m	50.9 m	125.4 m	307.4 m	758.0 m	1.9	4.6	11.3	27.8	68.5	168.5

