

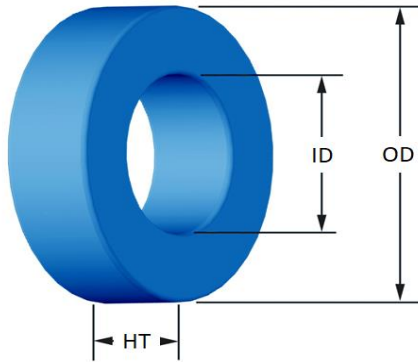


Part Number:

MS-133147-2

Revision:

2023-Dec-06



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

		mm	in
OD	(nom. - bare core)	33.02	1.300
	(max.)	33.83	1.332
ID	(nom. - bare core)	19.94	0.785
	(min.)	19.30	0.760
HT	(nom. - bare core)	14.00	0.551
	(max.)	15.00	0.591

Mass	(approximate)	42	grams
	A_e - Eff. Mag. Cross Section	0.874	cm ²
	L_e - Eff. Mag. Path Length	8.15	cm
	V_e - Eff. Core Volume	7.12	cm ³
	W_A - Min. Eff. Window Area	2.93	cm ²
	s_a - Surface Area	44.3	cm ²
Magnetic Dimensions	m_{lt} - mean length per turn	5.42	cm
	μ_i (reference)	147	
	A_L value (nominal)	196	nH/N ²
	Test Winding	70 Turns	AWG# 22
	Frequency	10k	Hz
	Voltage on Agilent 4284A	0.27	V
Inductance	AL tolerance	±8%	

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Core Loss	$\text{Core Loss (mW/cm}^3\text{)} = \frac{f}{\frac{a}{B_{pk}^3} + \frac{b}{B_{pk}^{2.3}} + \frac{c}{B_{pk}^{1.65}}} + d \cdot B_{pk}^2 \cdot f^2$		
	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	

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	14	18	22	29	36	46	58	73	91	114	142
		Rdc(Ω)	1.6 m	3.2 m	6.2 m	13.0 m	25.7 m	52.1 m	104.6 m	209.3 m	414.9 m	826.6 m	1.6
Full Winding		Turns	15	24	37	57	88	136	211	326	504	780	1,208
		Rdc(Ω)	1.7 m	4.3 m	10.4 m	25.5 m	62.7 m	154.2 m	380.4 m	934.6 m	2.3	5.7	13.9

