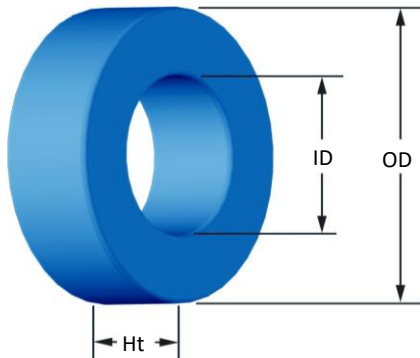




Part Number:

MS-031147-8

Revision 2022-Apr-28



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

OD	(nom. - bare core) (max.)	7.87 mm 8.51 mm	0.310 in 0.335 in
ID	(nom. - bare core) (min.)	3.96 mm 3.43 mm	0.156 in 0.135 in
HT	(nom. - bare core) (max.)	3.18 mm 3.81 mm	0.125 in 0.150 in
Mass	(approximate)	0.65 grams	
Magnetic Dimensions	A _e - Eff. Mag. Cross Section	0.0615 cm ²	
	L _e - Eff. Mag. Path Length	1.79 cm	
	V _e - Eff. Core Volume	0.110 cm ³	
	WA - Min. Eff. Window Area	0.0924 cm ²	
	sa - Surface Area	2.65 cm ²	
Inductance	mlt - mean length per turn	1.44 cm	
	μ _i (reference)	147	
	A _L value (nominal)	62 nH/N ²	
	Test Winding	N=45, #32 AWG	
	Frequency	10 kHz	
Core Loss	Voltage on Agilent 4284A	0.012 V	
	AL tolerance	±12%	
	$\text{Core Loss (mW/cm}^3\text{)} = \frac{a}{B_{pk}^3} + \frac{b}{B_{pk}^{2.3}} + \frac{c}{B_{pk}^{1.65}} + d \cdot B_{pk}^2 \cdot f^2$		
	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	
DC Saturation	frequency	50 kHz	
	Core Loss (nominal)	276 mW/cm ³	
	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		
Coating/Pkg	H _{DC}	40 Oe	
	Percent Initial Perm(nom.)	42.0%	
	Percent Initial Perm(min.)	35.3%	
	Coating Type:	Parylene N	
	Voltage Breakdown (min.)	500 Vrms	
Winding Table	Limit	0.1 mA, 5 s	
	Package Quantity	14,400 Pcs/Box	
	Wire Size	AWG	22 24 26 28 30 32 34 36 38 40 42
	mm	0.630 0.500 0.400 0.315 0.250 0.200 0.160 0.125 0.100 0.080 0.063	
	Single Layer	Turns	11 14 18 23 29 37 47 59 74 93 116
Full Winding	Rdc(Ω)	8.4 m 17.0 m 34.7 m 70.6 m 141.5 m 287.1 m 580.1 m 1.2 2.3 4.6 9.2	
	Turns	10 16 25 38 59 91 141 219 339 524 812	
	Rdc(Ω)	7.6 m 19.4 m 48.2 m 116.6 m 287.9 m 706.2 m 1.7 4.3 10.6 26.0 64.1	

