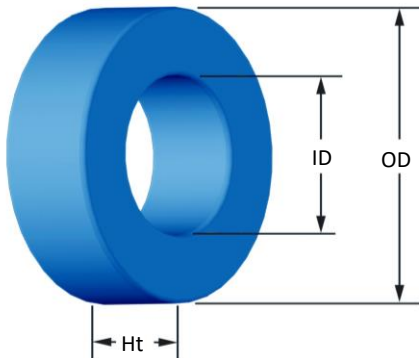




Part Number:

MS-028160-8

Revision 2022-Apr-28



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

OD	(nom. - bare core) (max.)	7.04 mm 7.67 mm	0.277 in 0.302 in
ID	(nom. - bare core) (min.)	3.96 mm 3.45 mm	0.156 in 0.136 in
HT	(nom. - bare core) (max.)	5.08 mm 5.72 mm	0.200 in 0.225 in
Mass	(approximate)	0.74 grams	
Magnetic Dimensions	A _e - Eff. Mag. Cross Section	0.0750 cm ²	
	L _e - Eff. Mag. Path Length	1.68 cm	
	V _e - Eff. Core Volume	0.126 cm ³	
	WA - Min. Eff. Window Area	0.0935 cm ²	
	sa - Surface Area	2.80 cm ²	
Inductance	μ _i (reference)	160	
	A _L value (nominal)	89 nH/N ²	
	Test Winding	N=40, #32 AWG	
	Frequency	10 kHz	
	Voltage on Agilent 4284A	0.013 V	
Core Loss	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	
	frequency	50 kHz	
DC Saturation	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=4.439E-05, c=1.627, d=0.000		
	H _{DC}	40 Oe	
Coating/Pkg	Percent Initial Perm(nom.)	35.8%	
	Percent Initial Perm(min.)	29.3%	
	Coating Type:	Parylene N	
	Voltage Breakdown (min.)	500 Vrms	
Winding Table	Limit	0.1 mA, 5 s	
	Package Quantity	12,600 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 75 93 117	
	Rdc(Ω)	10.1 m 20.5 m 41.9 m 85.1 m 170.7 m 346.3 m 699.6 m 1.4 2.8 5.6 11.1	
Full Winding	Turns	10 16 25 39 60 92 143 222 343 531 821	
	Rdc(Ω)	9.2 m 23.4 m 58.2 m 144.3 m 353.1 m 861.1 m 2.1 5.3 12.9 31.8 78.2	

