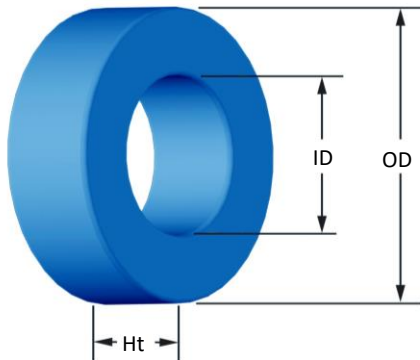




Part Number:

MS-038014-8

Revision 2021-Dec-01 - Generated 2021-Dec-01



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

OD	(nom. - bare core) (max.)	9.65 mm 10.29 mm	0.380 in 0.405 in
ID	(nom. - bare core) (min.)	4.78 mm 4.27 mm	0.188 in 0.168 in
HT	(nom. - bare core) (max.)	3.96 mm 4.57 mm	0.156 in 0.180 in
Mass	(approximate)	1.0 grams	
Magnetic Dimensions	A_e - Eff. Mag. Cross Section	0.0945 cm ²	
	L_e - Eff. Mag. Path Length	2.18 cm	
	V_e - Eff. Core Volume	0.206 cm ³	
	WA - Min. Eff. Window Area	0.143 cm ²	
	sa - Surface Area	3.88 cm ²	
	mlt - mean length per turn	1.73 cm	
Inductance	μ_i (reference)	14	
	A_L value (nominal)	7 nH/N ²	
	Test Winding	N=45, #30 AWG	
	Frequency	10 kHz	
	Voltage on Agilent 4284A	0.019 V	
	AL tolerance	±12%	
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:		
	$a=1.000E+06$, $b=1.814E+08$, $c=3.377E+06$, $d=2.628E-14$		
	B_{pk}	300 G	
	frequency	100 kHz	
	Core Loss (nominal)	180 mW/cm ³	
	Core Loss (maximum)	207 mW/cm ³	
DC Saturation	$\% \mu_i = \frac{1}{a + b \cdot H^c} + d$		
	where H expressed in oersteds, and:		
	$a=1.000E-02$, $b=9.443E-07$, $c=1.533$, $d=0.000$		
	H_{DC}	200 Oe	
	Percent Initial Perm(nom.)	75.9%	
	Percent Initial Perm(min.)	70.4%	
Coating/Pkg	Coating Type:	Parylene N	
	Voltage Breakdown (min.)	500 Vrms	
	Limit	0.1 mA, 5 s	
	Package Quantity	10,800 Pcs/Box	

Winding Table	Wire Size	AWG	20	22	24	26	28	30	32	34	36	38	40
		mm	0.800	0.630	0.500	0.400	0.315	0.250	0.200	0.160	0.125	0.100	0.080
	Single	Turns	11	14	18	23	29	37	47	59	74	93	116
	Layer	Rdc(Ω)	6.3 m	12.8 m	26.2 m	53.2 m	106.8 m	216.6 m	437.6 m	873.7 m	1.7	3.5	6.9
Full Winding	Turns	10	16	25	38	59	92	142	219	339	525	813	
	Rdc(Ω)	5.8 m	14.6 m	36.4 m	88.0 m	217.2 m	538.6 m	1.3	3.2	8.0	19.7	48.4	

