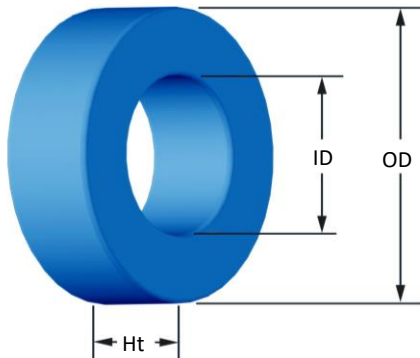




Part Number:

MS-038147-8

Revision 2022-Apr-28



(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)	1.2 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											
Inductance	mlt - mean length per turn	1.73 cm											
	μ _i (reference)	147											
	A _L value (nominal)	78 nH/N ²											
	Test Winding	N=45, #30 AWG											
	Frequency	10 kHz											
Core Loss	Voltage on Agilent 4284A	0.019 V											
	AL tolerance	±12%											
	Core Loss(mW/cm ³):	$\frac{a}{B_{pk}^3} + \frac{b}{B_{pk}^{2.3}} + \frac{c}{B_{pk}^{1.65}} + d \cdot B_{pk}^2 \cdot f^2$											
	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											
	%μ _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	10,800 Pcs/Box											
	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 R _{dc} (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 Turns	10	16	25	38	59	92	142	219	339	525	813		
Winding R _{dc} (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		

