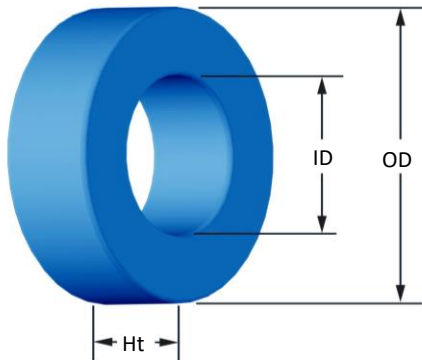




Part Number:

MS-038125-8

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)	1.2 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)	125											
	A _L value (nominal)	66 nH/N ²											
	Test Winding	N=45, #30 AWG											
	Frequency	10 kHz											
Core Loss	Voltage on Agilent 4284A	0.019 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: $a=1.000E-02$, $b=7.884E-06$, $c=1.883$, $d=0.000$												
Coating/Pkg	H _{DC}	40 Oe											
	Percent Initial Perm(nom.)	55.0%											
	Percent Initial Perm(min.)	46.4%											
	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
	Turns	11	14	18	23	29	37	47	59	74	93	116	
	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	
Single Layer	Turns	10	16	25	38	59	92	142	219	339	525	813	
	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	
	Turns	10	16	25	38	59	92	142	219	339	525	813	
	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	
	Turns	10	16	25	38	59	92	142	219	339	525	813	
Full 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	
	Turns	10	16	25	38	59	92	142	219	339	525	813	
	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	
	Turns	10	16	25	38	59	92	142	219	339	525	813	
	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	

