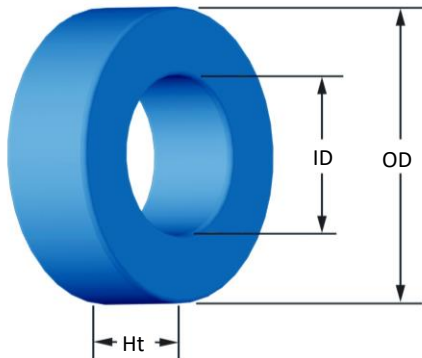




Part Number:

MS-044014-2

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



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

OD	(nom. - bare core) (max.)	11.18 mm 11.89 mm	0.440 in 0.468 in
ID	(nom. - bare core) (min.)	6.35 mm 5.89 mm	0.250 in 0.232 in
HT	(nom. - bare core) (max.)	3.96 mm 4.72 mm	0.156 in 0.186 in
Mass	(approximate)	1.2 grams	
Magnetic Dimensions	A_e - Eff. Mag. Cross Section	0.0906 cm ²	
	L_e - Eff. Mag. Path Length	2.69 cm	
	V_e - Eff. Core Volume	0.244 cm ³	
	W_A - Min. Eff. Window Area	0.272 cm ²	
	S_A - Surface Area	5.10 cm ²	
	mlt - mean length per turn	1.84 cm	
Inductance	μ_i (reference)	14	
	A_L value (nominal)	6 nH/N ²	
	Test Winding	N=60, #30 AWG	
	Frequency	10 kHz	
	Voltage on Agilent 4284A	0.024 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	
Coating/Pkg	Coating Type:	Blue Epoxy	
	Voltage Breakdown (min.)	1000 Vrms	
	Limit	0.1 mA, 5 s	
	Package Quantity	9,000 Pcs/Box	

Winding Table	Wire Size	AWG	18	20	22	24	26	28	30	32	34	36	38
		mm	1.000	0.800	0.630	0.500	0.400	0.315	0.250	0.200	0.160	0.125	0.100
	Single Layer	Turns	12	16	20	26	33	42	52	66	83	103	129
	Full Winding	Rdc(Ω)	4.6 m	9.8 m	19.5 m	40.2 m	81.2 m	164.4 m	323.6 m	653.3 m	1.3	2.6	5.1
		Turns	13	20	30	47	73	113	174	270	417	646	999
		Rdc(Ω)	5.0 m	12.2 m	29.2 m	72.7 m	179.6 m	442.2 m	1.1	2.7	6.6	16.2	39.8

