

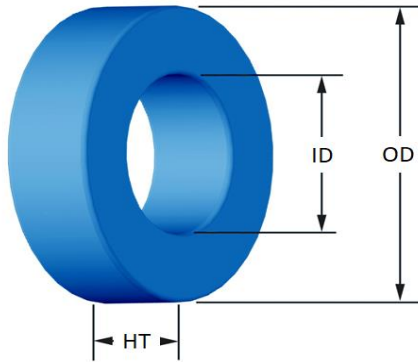


Part Number:

MS-650040-2

Revision:

2023-Dec-06



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

		mm	in
OD	(nom. - bare core)	165.10	6.500
	(max.)	166.37	6.550
ID	(nom. - bare core)	102.40	4.031
	(min.)	101.13	3.981
HT	(nom. - bare core)	31.75	1.250
	(max.)	33.02	1.300
Mass	(approximate)	2,260	grams
Magnetic Dimensions	A_e - Eff. Mag. Cross Section	9.87	cm ²
	L_e - Eff. Mag. Path Length	41.2	cm
	V_e - Eff. Core Volume	415	cm ³
	W_A - Min. Eff. Window Area	80.3	cm ²
	s_a - Surface Area	838	cm ²
	mlt - mean length per turn	18.2	cm
Inductance	μ_i (reference)	40	
	A_L value (nominal)	120	nH/N ²
	Test Winding	100 Turns	AWG# 22
	Frequency	10k	Hz
	Voltage on Agilent 4284A	4.4	V
	AL tolerance	±8%	
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:		
	$a=1.000E+06$, $b=6.961E+08$, $c=5.397E+06$, $d=4.127E-14$		
	B_{pk}	1000	G
	frequency	50 k	Hz
	Core Loss (nominal)	441	mW/cm ³
DC Saturation	$\% \mu_i = \frac{1}{a + b \cdot H^c} + d$		
	where H expressed in oersteds, and:		
	$a=1.000E-02$, $b=2.655E-06$, $c=1.703$, $d=0.000$		
	H_{dc}	100	Oe
Coating/Pkg	Coating Type:	Blue Epoxy	
	Voltage Breakdown (min.)	1000 Vrms	
	Limit	0.1 mA, 5 s	
	Package Quantity	3 Pcs/Box	

Winding Table	Wire Size	AWG	8	10	12	14	16	18	20	22	24	26	28
		mm	3.150	2.500	2.000	1.600	1.250	1.000	0.800	0.630	0.500	0.400	0.315
	Single Layer	Turns	83	104	130	162	203	253	315	393	489	609	758
	Full Winding	Turns	420	651	1,007	1,559	2,413	3,734	5,780	8,946	13,846	21,429	33,167
		Rdc(Ω)	157.0 m	387.1 m	952.3 m	2.3	5.8	14.2	35.0	86.1	211.9	521.5	1.3 k

