

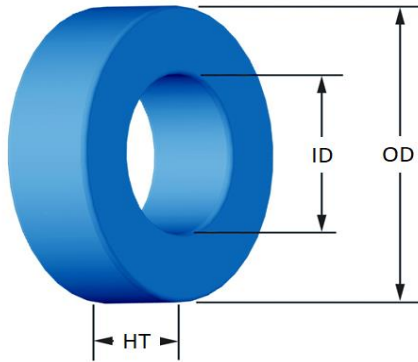


Part Number:

MS-600040-2

Revision:

2023-Dec-06



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

		mm	in
OD	(nom. - bare core)	152.40	6.000
	(max.)	153.90	6.059
ID	(nom. - bare core)	81.28	3.200
	(min.)	79.65	3.136
HT	(nom. - bare core)	20.32	0.800
	(max.)	21.72	0.855
Mass	(approximate)	1,380	grams
Magnetic Dimensions	A_e - Eff. Mag. Cross Section	7.05	cm ²
	L_e - Eff. Mag. Path Length	35.97	cm
	V_e - Eff. Core Volume	253	cm ³
	W_A - Min. Eff. Window Area	49.8	cm ²
	s_a - Surface Area	646	cm ²
	mlt - mean length per turn	15.8	cm
Inductance	μ_i (reference)	40	
	A_L value (nominal)	102	nH/N ²
	Test Winding	200 Turns	AWG# 18
	Frequency	10k	Hz
	Voltage on Agilent 4284A	6.3	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	65	81	102	127	159	198	247	309	385	479	597
	Full Winding	Turns	261	404	625	967	1,497	2,316	3,585	5,549	8,589	13,293	20,574
		Rdc(Ω)	84.5 m	208.1 m	512.0 m	1.3	3.1	7.6	18.8	46.2	113.9	280.2	689.8

