

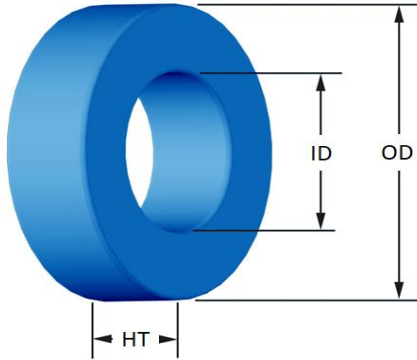


Part Number:

MS-306040-2

Revision:

2023-Dec-18



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

		mm	in
OD	(nom. - bare core)	77.80	3.063
	(max.)	78.94	3.108
ID	(nom. - bare core)	39.34	1.549
	(min.)	38.34	1.509
HT	(nom. - bare core)	25.85	1.018
	(max.)	26.85	1.057
Mass	(approximate)	440	grams
Magnetic Dimensions	A_e - Eff. Mag. Cross Section	4.78	cm ²
	L_e - Eff. Mag. Path Length	17	cm
	V_e - Eff. Core Volume	81.5	cm ³
	W_A - Min. Eff. Window Area	11.5	cm ²
	s_a - Surface Area	211	cm ²
	mlt - mean length per turn	11.3	cm
Inductance	μ_i (reference)	40	
	A_L value (nominal)	135	nH/N ²
	Test Winding	120 Turns	AWG# 18
	Frequency	10k	Hz
	Voltage on Agilent 4284A	2.5	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	18 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	30	38	47	60	75	94	118	147	184	229	286
	Full Winding	Turns	60	94	145	224	347	537	831	1,286	1,990	3,080	4,767
		Rdc(Ω)	7.0 m	14.1 m	27.7 m	56.3 m	111.9 m	223.1 m	445.5 m	882.6 m	1.8	3.5	6.9
		Rdc(Ω)	14.0 m	34.9 m	85.6 m	210.2 m	517.9 m	1.3	3.1	7.7	19.0	46.8	115.1

