

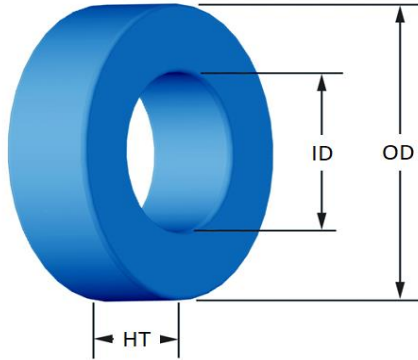


Part Number:

MS-268147-2

Revision:

2023-Dec-18



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

	mm	in
OD	(nom. - bare core)	68.00
	(max.)	69.42
ID	(nom. - bare core)	36.00
	(min.)	34.67
HT	(nom. - bare core)	20.00
	(max.)	21.41

Mass	(approximate)	290	grams
Magnetic Dimensions	A_e - Eff. Mag. Cross Section	3.14	cm ²
	L_e - Eff. Mag. Path Length	15.8	cm
	V_e - Eff. Core Volume	49.7	cm ³
	W_A - Min. Eff. Window Area	9.44	cm ²
	s_a - Surface Area	159	cm ²
	m_{lt} - mean length per turn	9.49	cm

Inductance	μ_i (reference)	147	
	A_L value (nominal)	367	nH/N ²
	Test Winding	100 Turns	AWG# 18
	Frequency	10k	Hz
	Voltage on Agilent 4284A	1.4	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: $a=1.394E+10$, $b=1.034E+09$, $c=1.244E+07$, $d=4.007E-14$		
	B_{pk}	1000	G
	frequency	50 k	Hz
	Core Loss (nominal)	276	mW/cm ³
	Core Loss (maximum)	318	mW/cm ³

DC Saturation	$\% \mu_i = \frac{1}{a + b \cdot H^c} + d$ where H expressed in oersteds, and: $a=1.000E-02$, $b=4.732E-05$, $c=1.539$, $d=0.000$		
	H_{dc}	40	Oe
	Percent Initial Perm(nom.)	42.0	%
	Percent Initial Perm(min.)	35.3	%

Coating/Pkg	Blue Epoxy		
	Voltage Breakdown (min.)	1000	Vrms
	Limit	0.1 mA, 5 s	
	Package Quantity	24	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	27	34	43	54	68	85	106	133	166	207	258
	Full Winding	Rdc(Ω)	5.3 m	10.6 m	21.2 m	42.4 m	84.9 m	168.8 m	334.7 m	667.9 m	1.3	2.6	5.2
		Turns	49	76	118	183	284	439	679	1,051	1,627	2,519	3,898
		Rdc(Ω)	9.6 m	23.6 m	58.2 m	143.6 m	354.5 m	871.6 m	2.1	5.3	13.0	32.0	78.7

