

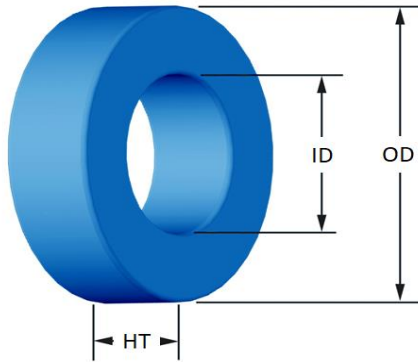


Part Number:

MS-268040-2

Revision:

2023-Dec-18



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

	mm	in
OD		
(nom. - bare core)	68.00	2.677
(max.)	69.42	2.733
ID		
(nom. - bare core)	36.00	1.417
(min.)	34.67	1.365
HT		
(nom. - bare core)	20.00	0.787
(max.)	21.41	0.843

Mass	(approximate)	270	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)	40		
A_L value (nominal)	100	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: $a=1.000E+06$, $b=6.961E+08$, $c=5.397E+06$, $d=4.127E-14$			
B_{pk}	1000	G	
frequency	50 k	Hz	
Core Loss (nominal)	441	mW/cm ³	
Core Loss (maximum)	507	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	
Percent Initial Perm(nom.)	59.6	%	
Percent Initial Perm(min.)	52.0	%	

Coating/Pkg			
Coating Type:	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
		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
	Full Winding	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

