

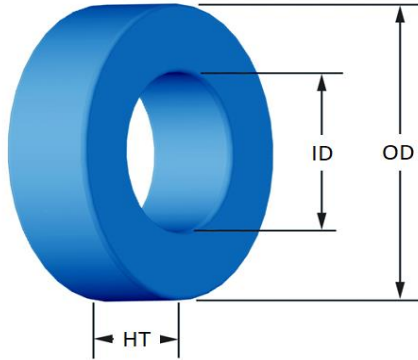


Part Number:

MS-131075-2

Revision:

2023-Dec-06



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

		mm	in
OD	(nom. - bare core)	33.02	1.300
	(max.)	33.83	1.332
ID	(nom. - bare core)	19.94	0.785
	(min.)	19.30	0.760
HT	(nom. - bare core)	8.76	0.345
	(max.)	9.70	0.382
Mass	(approximate)	26	grams
Magnetic Dimensions	A_e - Eff. Mag. Cross Section	0.551	cm ²
	L_e - Eff. Mag. Path Length	8.15	cm
	V_e - Eff. Core Volume	4.49	cm ³
	W_A - Min. Eff. Window Area	2.93	cm ²
	s_a - Surface Area	37.8	cm ²
	mlt - mean length per turn	4.36	cm
Inductance	μ_i (reference)	75	
	A_L value (nominal)	63.8	nH/N ²
	Test Winding	70 Turns	AWG# 22
	Frequency	10k	Hz
	Voltage on Agilent 4284A	0.17	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:		
	$a=7.890E+09$, $b=7.111E+08$, $c=8.980E+06$, $d=2.846E-14$		
	B_{pk}	1000	G
	frequency	50 k	Hz
	Core Loss (nominal)	323	mW/cm ³
DC Saturation	$\% \mu_i = \frac{1}{a + b \cdot H^c} + d$		
	where H expressed in oersteds, and:		
	$a=1.000E-02$, $b=3.414E-06$, $c=1.841$, $d=0.000$		
	H_{dc}	80	Oe
	Percent Initial Perm(nom.)	47.9	%
	Percent Initial Perm(min.)	39.6	%
Coating/Pkg	Coating Type:	Blue Epoxy	
	Voltage Breakdown (min.)	1000 Vrms	
	Limit	0.1 mA, 5 s	
	Package Quantity	420 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	14	18	22	29	36	46	58	73	91	114	142
	Full Winding	Turns	15	24	37	57	88	136	211	326	504	780	1,208
		Rdc(Ω)	1.3 m	2.6 m	5.0 m	10.5 m	20.6 m	41.9 m	84.1 m	168.3 m	333.7 m	664.9 m	1.3
		Rdc(Ω)	1.3 m	3.4 m	8.4 m	20.5 m	50.4 m	124.0 m	305.9 m	751.8 m	1.8	4.5	11.2

