

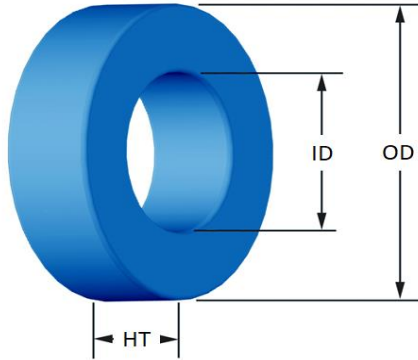


Part Number:

MS-300090-2

Revision:

2023-Dec-06



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

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OD	(nom. - bare core)	77.80	3.063			
	(max.)	78.94	3.108			
ID	(nom. - bare core)	49.23	1.938			
	(min.)	47.96	1.888			
HT	(nom. - bare core)	12.70	0.500			
	(max.)	13.97	0.550			
Mass	(approximate)	210	grams			
Magnetic Dimensions	A _e - Eff. Mag. Cross Section	1.77	cm ²			
	L _e - Eff. Mag. Path Length	19.612	cm			
	V _e - Eff. Core Volume	34.8	cm ³			
	W _A - Min. Eff. Window Area	18.1	cm ²			
	s _a - Surface Area	184	cm ²			
	mlt - mean length per turn	8.29	cm			
Inductance	μ _i (reference)	90				
	A _L value (nominal)	102	nH/N ²			
	Test Winding	120 Turns	AWG# 18			
	Frequency	10k	Hz			
	Voltage on Agilent 4284A	0.94	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 <i>B_{pk}</i> expressed in gauss, <i>f</i> expressed in hertz, and: <i>a</i> =7.890E+09, <i>b</i> =7.111E+08, <i>c</i> =8.980E+06, <i>d</i> =2.846E-14					
	B _{pk}	1000	G			
	frequency	50 k	Hz			
	Core Loss (nominal)	323	mW/cm ³			
	Core Loss (maximum)	372	mW/cm ³			
DC Saturation	$\% \mu_i \frac{1}{a+b\cdot H^c}+d$					
	where H expressed in oersteds, and: <i>a</i> =1.000E-02, <i>b</i> =3.994E-06, <i>c</i> =1.883, <i>d</i> =0.000					
	H _{DC}	50	Oe			
	Percent Initial Perm.(nom.)	61.3	%			
	Percent Initial Perm.(min.)	52.9	%			
Coating/Pkg	Coating Type:	Blue Epoxy				
	Voltage Breakdown (min.)	1000 Vrms				
	Limit	0.1 mA, 5 s				
	Package Quantity	36 Pcs/Box				
Winding Table	Wire Size	AWG	8	10	12	
		mm	3.150	2.500	2.000	
	Single Layer	Turns	38	48	60	
		Rdc(Ω)	6.5 m	13.0 m	25.9 m	
	Full Winding	Turns	95	146	227	
		Rdc(Ω)	16.2 m	39.6 m	97.9 m	

