

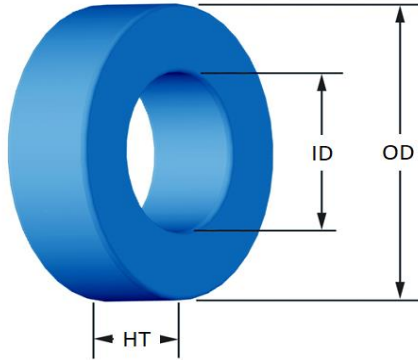


Part Number:

MS-520040-2

Revision:

2023-Dec-06



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

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OD	(nom. - bare core)		132.54	5.218		
	(max.)		134.21	5.284		
ID	(nom. - bare core)		78.59	3.094		
	(min.)		77.04	3.033		
HT	(nom. - bare core)		20.32	0.800		
	(max.)		21.72	0.855		
Mass	(approximate)		950	grams		
Magnetic Dimensions	A _e - Eff. Mag. Cross Section		5.35	cm ²		
	L _e - Eff. Mag. Path Length		32.429	cm		
	V _e - Eff. Core Volume		173	cm ³		
	W _A - Min. Eff. Window Area		46.6	cm ²		
	s _a - Surface Area		515	cm ²		
	m _{lt} - mean length per turn		13.9	cm		
Inductance	μ _i (reference)		40			
	A _L value (nominal)		83	nH/N ²		
	Test Winding		200 Turns	AWG# 18		
	Frequency		10k	Hz		
	Voltage on Agilent 4284A		4.8	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> =1.000E+06, <i>b</i> =6.961E+08, <i>c</i> =5.397E+06, <i>d</i> =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: <i>a</i> =1.000E-02, <i>b</i> =2.655E-06, <i>c</i> =1.703, <i>d</i> =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		6 Pcs/Box			
Winding Table	Wire Size	AWG	8	10	12	
		mm	3.150	2.500	2.000	
	Single Layer	Turns	62	78	98	
		Rdc(Ω)	17.7 m	35.5 m	70.9 m	1
	Full Winding	Turns	244	378	584	
		Rdc(Ω)	69.8 m	172.0 m	422.6 m	

