



Part Number:

MS-306147-2

Revision:

2023-Dec-18



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

(If coated, Max./Min. includes coating)		mm	in			
OD	(nom. - bare core)	77.80	3.063			
	(max.)	78.94	3.108			
ID	(nom. - bare core)	39.34	1.549			
	(min.)	38.34	1.509			
HT	(nom. - bare core)	25.85	1.018			
	(max.)	26.85	1.057			
Mass	(approximate)	480	grams			
Magnetic Dimensions	A _e - Eff. Mag. Cross Section	4.78	cm ²			
	L _e - Eff. Mag. Path Length	17	cm			
	V _e - Eff. Core Volume	81.5	cm ³			
	W _A - Min. Eff. Window Area	11.5	cm ²			
	s _a - Surface Area	211	cm ²			
	m _{lt} - mean length per turn	11.3	cm			
Inductance	μ _i (reference)	147				
	A _L value (nominal)	500	nH/N ²			
	Test Winding	120 Turns	AWG# 18			
	Frequency	10k	Hz			
	Voltage on Agilent 4284A	2.5	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> =1.394E+10, <i>b</i> =1.034E+09, <i>c</i> =1.244E+07, <i>d</i> =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: <i>a</i> =1.000E-02, <i>b</i> =4.732E-05, <i>c</i> =1.539, <i>d</i> =0.000					
	H _{DC}	40	Oe			
	Percent Initial Perm.(nom.)	42.0	%			
	Percent Initial Perm.(min.)	35.3	%			
Coating/Pkg	Coating Type:	Blue Epoxy				
	Voltage Breakdown (min.)	1000 Vrms				
	Limit	0.1 mA, 5 s				
	Package Quantity	18 Pcs/Box				
Winding Table	Wire Size	AWG	8	10	12	
		mm	3.150	2.500	2.000	
	Single Layer	Turns	30	38	47	
		Rdc(Ω)	7.0 m	14.1 m	27.7 m	
	Full Winding	Turns	60	94	145	
		Rdc(Ω)	14.0 m	34.9 m	85.6 m	

