



Part Number: **MS-080014-2**
 Revision 20160816 - Generated 2016-Aug-16



OD	(nom. - bare core)	20.32 mm	0.800 in
	(max. - after coating)	21.08 mm	0.830 in
ID	(nom. - bare core)	12.70 mm	0.500 in
	(min. - after coating)	12.07 mm	0.475 in
Ht	(nom. - bare core)	6.35 mm	0.250 in
	(max. - after coating)	7.11 mm	0.280 in
Mass	(approximate)	5.6 grams	
Magnetic Dimensions	A _e - Eff. Mag. Cross Section	0.226 cm ²	
	L _e - Eff. Mag. Path Length	5.09 cm	
	V _e - Eff. Core Volume	1.15 cm ³	
	WA - Min. Eff. Window Area	1.14 cm ²	
	sa - Surface Area	15.5 cm ²	
	mlt - mean length per turn	2.93 cm	
	Inductance	μ _i (reference)	14
Core Loss	A _L value (nominal)	7.8 nH/N ²	
	Test Winding	N=90, #28 AWG	
	Frequency	10 kHz	
	Voltage on Agilent 4284A	0.090 V	
	AL tolerance	±8%	
DC Saturation	Core Loss(mW/cm ³)= $\frac{f}{\frac{a}{B_{pk}^3} + \frac{b}{B_{pk}^{2.3}} + \frac{c}{B_{pk}^{1.65}}} + d \cdot B_{pk}^2 \cdot f^2$		
	where B _{pk} expressed in gauss, f expressed in hertz, and: a=1.000E+09, b=4.213E+08, c=1.032E+07, d=2.297E-14		
	B _{pk}	300 G	
	frequency	100 kHz	
	Core Loss (nominal)	79 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=5.722E-08, c=1.995, d=0.000		
	H _{DC}	200 Oe	
	Percent Initial Perm.(nom.)	81.7%	
Coating/Pkg	Percent Initial Perm.(min.)	75.7%	
	Coating Type:	Blue Epoxy	
	Voltage Breakdown (min.)	1000 Vrms	
	Limit	0.1 mA, 5 s	
Winding Table	Package Quantity	1,800 Pcs/Box	
	Wire Size	AWG	10 12 14 16 18 20 22 24 26 28 30
Single Layer	mm	2.500 2.000 1.600 1.250 1.000 0.800 0.630 0.500 0.400 0.315 0.250	
	Turns	10 13 17 22 28 35 44 56 70 88 110	
Full Winding	Rdc(Ω)	1.0 m 2.0 m 4.1 m 8.5 m 17.1 m 34.1 m 68.1 m 137.9 m 274.2 m 548.2 m 1.1	
	Turns	9 14 22 34 53 82 127 197 305 472 731	
Full Winding	Rdc(Ω)	0.9 m 2.1 m 5.3 m 13.1 m 32.4 m 79.8 m 196.7 m 485.2 m 1.2 2.9 7.2	

