



Part Number:

MS-092014-2

Revision:

2023-Dec-06



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

		mm	in
OD	(nom. - bare core)	23.57	0.928
	(max.)	24.28	0.956
ID	(nom. - bare core)	14.40	0.567
	(min.)	13.77	0.542
HT	(nom. - bare core)	8.89	0.350
	(max.)	9.70	0.382
Mass	(approximate)	11	grams
Magnetic Dimensions	A _e - Eff. Mag. Cross Section	0.388	cm ²
	L _e - Eff. Mag. Path Length	5.88	cm
	V _e - Eff. Core Volume	2.28	cm ³
	W _A - Min. Eff. Window Area	1.49	cm ²
	s _a - Surface Area	21.8	cm ²
	mlt - mean length per turn	3.68	cm
Inductance	μ _i (reference)	14	
	A _L value (nominal)	12	nH/N ²
	Test Winding	80 Turns	AWG# 26
	Frequency	10k	Hz
	Voltage on Agilent 4284A	0.14	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=1.000E+06, b=1.814E+08, c=3.377E+06, d=2.628E-14		
	B _{pk}	300	G
	frequency	100 k	Hz
	Core Loss (nominal)	180	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=9.443E-07, c=1.533, d=0.000		
	H _{dc}	200	Oe
	Percent Initial Perm(nom.)	75.9	%
	Percent Initial Perm(min.)	70.4	%
Coating/Pkg	Coating Type:	Blue Epoxy	
	Voltage Breakdown (min.)	1000 Vrms	
	Limit	0.1 mA, 5 s	
	Package Quantity	900 Pcs/Box	

Winding Table	Wire Size	AWG	10	12	14	16	18	20	22	24	26	28	30
		mm	2.500	2.000	1.600	1.250	1.000	0.800	0.630	0.500	0.400	0.315	0.250
	Single Layer	Turns	12	15	20	25	32	40	51	64	80	101	126
	Full Winding	Rdc(Ω)	1.4 m	2.9 m	6.1 m	12.1 m	24.6 m	49.0 m	99.3 m	198.2 m	394.0 m	791.0 m	1.6
	Winding	Turns	12	19	29	45	69	107	166	257	397	615	952
		Rdc(Ω)	1.4 m	3.6 m	8.8 m	21.8 m	53.1 m	131.0 m	323.2 m	795.8 m	2.0	4.8	11.9

