



**Part Number:** **MS-092125-2**  
 Revision 20160816 - Generated 2016-Aug-16



<b>OD</b>	(nom. - bare core)	23.57 mm	0.928 in
	(max. - after coating)	24.28 mm	0.956 in
<b>ID</b>	(nom. - bare core)	14.40 mm	0.567 in
	(min. - after coating)	13.77 mm	0.542 in
<b>Ht</b>	(nom. - bare core)	8.89 mm	0.350 in
	(max. - after coating)	9.70 mm	0.382 in
<b>Mass</b>	(approximate)	13 grams	
<b>Magnetic Dimensions</b>	A <sub>e</sub> - Eff. Mag. Cross Section	0.388 cm <sup>2</sup>	
	L <sub>e</sub> - Eff. Mag. Path Length	5.88 cm	
	V <sub>e</sub> - Eff. Core Volume	2.28 cm <sup>3</sup>	
	WA - Min. Eff. Window Area	1.49 cm <sup>2</sup>	
	sa - Surface Area	21.8 cm <sup>2</sup>	
	mlt - mean length per turn	3.68 cm	
<b>Inductance</b>	μ <sub>i</sub> (reference)	125	
	A <sub>L</sub> value (nominal)	105 nH/N <sup>2</sup>	
	Test Winding	N=80, #26 AWG	
	Frequency	10 kHz	
	Voltage on Agilent 4284A	0.14 V	
	AL tolerance	±8%	
<b>Core Loss</b>	$\text{Core Loss (mW/cm}^3\text{)} = \frac{f}{\frac{a}{B_{pk}^3} + \frac{b}{B_{pk}^{2.3}} + \frac{c}{B_{pk}^{1.65}}} + d \cdot B_{pk}^2 \cdot f^2$		
	where B <sub>pk</sub> expressed in gauss, f expressed in hertz, and: a=1.394E+10, b=1.034E+09, c=1.244E+07, d=4.007E-14		
	B <sub>pk</sub>	1000 G	
	frequency	50 kHz	
	Core Loss (nominal)	276 mW/cm <sup>3</sup>	
Core Loss (maximum)	318 mW/cm <sup>3</sup>		
<b>DC Saturation</b>	$\% \mu_i = \frac{1}{a + b \cdot H^c} + d$		
	where H expressed in oersteds, and: a=1.000E-02, b=7.884E-06, c=1.883, d=0.000		
	H <sub>DC</sub>	40 Oe	
	Percent Initial Perm.(nom.)	55.0%	
Percent Initial Perm.(min.)	46.4%		
<b>Coating/Pkg</b>	Coating Type:	Blue Epoxy	
	Voltage Breakdown (min.)	1000 Vrms	
	Limit	0.1 mA, 5 s	
	Package Quantity	1,089 Pcs/Box	

<b>Winding Table</b>	<b>Wire Size</b>	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
	<b>Single Layer</b>	Turns	12	15	20	25	32	40	51	64	80	101	126
		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
<b>Full Winding</b>	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	

