



**Part Number:** **MS-775014-2**  
 Revision 20160816 - Generated 2016-Aug-16



<b>OD</b>	(nom. - bare core)	196.85 mm	7.750 in
	(max. - after coating)	198.37 mm	7.810 in
<b>ID</b>	(nom. - bare core)	146.05 mm	5.750 in
	(min. - after coating)	144.53 mm	5.690 in
<b>Ht</b>	(nom. - bare core)	25.40 mm	1.000 in
	(max. - after coating)	26.92 mm	1.060 in
<b>Mass</b>	(approximate)	1,650 grams	
<b>Magnetic Dimensions</b>	A <sub>e</sub> - Eff. Mag. Cross Section	6.26 cm <sup>2</sup>	
	L <sub>e</sub> - Eff. Mag. Path Length	53.86 cm	
	V <sub>e</sub> - Eff. Core Volume	337 cm <sup>3</sup>	
	WA - Min. Eff. Window Area	164.1 cm <sup>2</sup>	
	sa - Surface Area	1,144 cm <sup>2</sup>	
	mlt - mean length per turn	18.0 cm	
<b>Inductance</b>	μ <sub>i</sub> (reference)	14	
	A <sub>L</sub> value (nominal)	20.5 nH/N <sup>2</sup>	
	Test Winding	N=100, #18 AWG	
	Frequency	10 kHz	
	Voltage on Agilent 4284A	2.8 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=1.000E+09, b=4.213E+08, c=1.032E+07, d=2.297E-14		
	B <sub>pk</sub>	300 G	
	frequency	100 kHz	
	Core Loss (nominal)	79 mW/cm <sup>3</sup>	
Core Loss (maximum)	90 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=5.722E-08, c=1.995, d=0.000		
	H <sub>DC</sub>	200 Oe	
	Percent Initial Perm (nom.)	81.7%	
Percent Initial Perm (min.)	75.7%		
<b>Coating/Pkg</b>	Coating Type:	Blue Epoxy	
	Voltage Breakdown (min.)	1000 Vrms	
	Limit	0.1 mA, 5 s	
	Package Quantity	3 Pcs/Box	

<b>Winding Table</b>	<b>Wire Size</b>	AWG	8	10	12	14	16	18	20	22	24	26	28
		mm	3.150	2.500	2.000	1.600	1.250	1.000	0.800	0.630	0.500	0.400	0.315
	<b>Single Layer</b>	Turns	120	150	187	233	291	362	451	562	700	872	1,085
		Rdc(Ω)	44.4 m	88.3 m	175.0 m	346.8 m	688.9 m	1.4	2.7	5.4	10.6	21.0	41.6
<b>Full Winding</b>	Turns	859	1,329	2,057	3,184	4,928	7,627	11,804	18,270	28,277	43,766	67,739	
	Rdc(Ω)	317.8 m	782.1 m	1.9	4.7	11.7	28.7	70.7	174.0	428.2	1.1 k	2.6 k	

