



**Part Number:** **MS-133160-2**  
 Revision 20160816 - Generated 2016-Aug-16



<b>OD</b>	(nom. - bare core)	33.02 mm	1.300 in
	(max. - after coating)	33.83 mm	1.332 in
<b>ID</b>	(nom. - bare core)	19.94 mm	0.785 in
	(min. - after coating)	19.30 mm	0.760 in
<b>Ht</b>	(nom. - bare core)	14.00 mm	0.551 in
	(max. - after coating)	15.00 mm	0.591 in
<b>Mass</b>	(approximate)	42 grams	
<b>Magnetic Dimensions</b>	A <sub>e</sub> - Eff. Mag. Cross Section	0.874 cm <sup>2</sup>	
	L <sub>e</sub> - Eff. Mag. Path Length	8.15 cm	
	V <sub>e</sub> - Eff. Core Volume	7.12 cm <sup>3</sup>	
	WA - Min. Eff. Window Area	2.93 cm <sup>2</sup>	
	sa - Surface Area	44.3 cm <sup>2</sup>	
	mlt - mean length per turn	5.42 cm	
	<b>Inductance</b>	μ <sub>i</sub> (reference)	160
<b>Core Loss</b>	A <sub>L</sub> value (nominal)	213 nH/N <sup>2</sup>	
	Test Winding	N=70, #22 AWG	
	Frequency	10 kHz	
	Voltage on Agilent 4284A	0.27 V	
	AL tolerance	±8%	
<b>DC Saturation</b>	Core Loss(mW/cm <sup>3</sup> )= $\frac{f}{\frac{a}{B_{pk}^3} + \frac{b}{B_{pk}^{2.3}} + \frac{c}{B_{pk}^{1.65}}} + d \cdot B_{pk}^2 \cdot f^2$		
	where B <sub>pk</sub> expressed in gauss, f expressed in hertz, and: a=3.679E+10, b=1.150E+09, c=1.004E+07, d=2.851E-14		
	B <sub>pk</sub>	1000 G	
	frequency	50 kHz	
	Core Loss (nominal)	241 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=4.439E-05, c=1.627, d=0.000		
	H <sub>DC</sub>	40 Oe	
	Percent Initial Perm(nom.)	35.8%	
<b>Coating/Pkg</b>	Percent Initial Perm(min.)	29.3%	
	Coating Type:	Blue Epoxy	
	Voltage Breakdown (min.)	1000 Vrms	
	Limit	0.1 mA, 5 s	
<b>Winding Table</b>	Package Quantity	384 Pcs/Box	
	Wire Size	AWG	8 10 12 14 16 18 20 22 24 26 28
<b>Single Layer</b>	mm	3.150 2.500 2.000 1.600 1.250 1.000 0.800 0.630 0.500 0.400 0.315	
	Turns	14 18 22 29 36 46 58 73 91 114 142	
<b>Full Winding</b>	Rdc(Ω)	1.6 m 3.2 m 6.2 m 13.0 m 25.7 m 52.1 m 104.6 m 209.3 m 414.9 m 826.6 m 1.6	
	Turns	15 24 37 57 88 136 211 326 504 780 1,208	
<b>Full Winding</b>	Rdc(Ω)	1.7 m 4.3 m 10.4 m 25.5 m 62.7 m 154.2 m 380.4 m 934.6 m 2.3 5.7 13.9	

