



**Part Number:** **MS-065160-2**  
 Revision 20160816 - Generated 2016-Aug-16



<b>OD</b>	(nom. - bare core) (max. - after coating)	16.64 mm 17.40 mm	0.655 in 0.685 in
<b>ID</b>	(nom. - bare core) (min. - after coating)	10.16 mm 9.53 mm	0.400 in 0.375 in
<b>Ht</b>	(nom. - bare core) (max. - after coating)	6.35 mm 7.11 mm	0.250 in 0.280 in
<b>Mass</b>	(approximate)	4.7 grams	
<b>Magnetic Dimensions</b>	A <sub>e</sub> - Eff. Mag. Cross Section	0.192 cm <sup>2</sup>	
	L <sub>e</sub> - Eff. Mag. Path Length	4.11 cm	
	V <sub>e</sub> - Eff. Core Volume	0.789 cm <sup>3</sup>	
	WA - Min. Eff. Window Area	0.713 cm <sup>2</sup>	
	sa - Surface Area	11.2 cm <sup>2</sup>	
	mlt - mean length per turn	2.69 cm	
<b>Inductance</b>	μ <sub>i</sub> (reference)	160	
	A <sub>L</sub> value (nominal)	92 nH/N <sup>2</sup>	
	Test Winding	N=70, #28 AWG	
	Frequency	10 kHz	
	Voltage on Agilent 4284A	0.060 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=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>	
Core Loss (maximum)	277 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%	
Percent Initial Perm (min.)	29.3%		
<b>Coating/Pkg</b>	Coating Type:	Blue Epoxy	
	Voltage Breakdown (min.)	1000 Vrms	
	Limit	0.1 mA, 5 s	
	Package Quantity	2,880 Pcs/Box	

<b>Winding Table</b>	<b>Wire Size</b>	AWG	12	14	16	18	20	22	24	26	28	30	32
		mm	2.000	1.600	1.250	1.000	0.800	0.630	0.500	0.400	0.315	0.250	0.200
	<b>Single Layer</b>	Turns	10	13	17	21	27	34	44	55	69	86	108
		Rdc(Ω)	1.4 m	2.9 m	6.0 m	11.8 m	24.1 m	48.3 m	99.4 m	197.7 m	394.4 m	781.8 m	1.6
<b>Full Winding</b>	Turns	9	14	21	33	51	79	123	190	295	456	706	
	Rdc(Ω)	1.3 m	3.1 m	7.4 m	18.5 m	45.6 m	112.3 m	278.0 m	682.9 m	1.7	4.1	10.2	

