



**Part Number:** EMS-0552821-075

Revision 20160816 - Generated 2016-Aug-16



<b>A</b>	54.9 ± 0.81 mm	2.161 ± 0.032 in
<b>B</b>	27.6 ± 0.41 mm	1.087 ± 0.016 in
<b>C</b>	20.6 ± 0.41 mm	0.811 ± 0.016 in
<b>D</b>	18.5 mm (min.)	0.728 in (min.)
<b>E</b>	37.5 mm (min.)	1.476 in (min.)
<b>F</b>	16.8 ± 0.33 mm	0.661 ± 0.013 in
<b>Mass</b>	(approximate)	130 grams/half
<b>Magnetic Dimensions</b>	A <sub>e</sub> - Eff. Mag. Cross Section	3.50 cm <sup>2</sup>
	L <sub>e</sub> - Eff. Mag. Path Length	12.3 cm
	V <sub>e</sub> - Eff. Core Volume	43.1 cm <sup>3</sup>
	WA - Min. Eff. Window Area	3.77 cm <sup>2</sup>
	sa - Surface Area	121 cm <sup>2</sup>
	mlt - mean length per turn	11.6 cm
<b>Inductance</b>	μ <sub>i</sub> (reference)	75
	A <sub>L</sub> value (nominal)	304 nH/N <sup>2</sup>
	Test Winding	N=100, #16 AWG
	Frequency	10 kHz
	Voltage on Agilent 4284A	1.6 V
	A <sub>L</sub> 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=7.89E+09, b=7.11E+08, c=8.98E+06, d=2.85E-14	
	B <sub>pk</sub>	1000 G
	frequency	50 kHz
	Core Loss (nominal)	323 mW/cm <sup>3</sup>
Core Loss (maximum)	372 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=0.01, b=3.41E-06, c=1.84, d=0.00	
	H <sub>DC</sub>	50 Oe
	Percent Initial Perm(nom.)	68.6%
	Percent Initial Perm(min.)	60.9%
<b>Coating/Pkg</b>	Coating Type:	None
	Voltage Breakdown (min.)	N/A
	Limit	N/A
	Package Quantity	96 Halves/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>Full Winding</b>	Turns	20	31	49	75	117	180	279	432	669	1,036	1,603
	Rdc(Ω)		4.8 m	11.8 m	29.6 m	72.1 m	178.8 m	437.6 m	1.1	2.7	6.5	16.1	39.6

