



**Part Number:** EMS-0251007-090

Revision 20160816 - Generated 2016-Aug-16



<b>A</b>	25.4 ± 0.38 mm	1.000 ± 0.015 in
<b>B</b>	9.5 ± 0.18 mm	0.374 ± 0.007 in
<b>C</b>	6.5 ± 0.10 mm	0.256 ± 0.004 in
<b>D</b>	6.2 mm (min.)	0.244 in (min.)
<b>E</b>	18.8 mm (min.)	0.740 in (min.)
<b>F</b>	6.2 ± 0.13 mm	0.244 ± 0.005 in
<b>Mass</b>	(approximate)	5.5 grams/half
<b>Magnetic Dimensions</b>	A <sub>e</sub> - Eff. Mag. Cross Section	0.385 cm <sup>2</sup>
	L <sub>e</sub> - Eff. Mag. Path Length	4.85 cm
	V <sub>e</sub> - Eff. Core Volume	1.87 cm <sup>3</sup>
	WA - Min. Eff. Window Area	0.773 cm <sup>2</sup>
	sa - Surface Area	19.4 cm <sup>2</sup>
mlt - mean length per turn	5.06 cm	
<b>Inductance</b>	μ <sub>i</sub> (reference)	90
	A <sub>L</sub> value (nominal)	100 nH/N <sup>2</sup>
	Test Winding	N=100, #24 AWG
	Frequency	10 kHz
	Voltage on Agilent 4284A	0.17 V
A <sub>L</sub> tolerance	±8%	
<b>Core Loss</b>	$\text{Core Loss (mW/cm}^3\text{)} = \frac{f}{\frac{a}{Bpk^3} + \frac{b}{Bpk^{2.3}} + \frac{c}{Bpk^{1.65}}} + d \cdot Bpk^2 \cdot f^2$	
	where B <sub>pk</sub> expressed in gauss, f expressed in hertz, and: a=1.46E+09, b=8.28E+08, c=4.62E+06, d=1.09E-14	
	B <sub>pk</sub>	1000 G
	frequency	50 kHz
Core Loss (nominal)	345 mW/cm <sup>3</sup>	
Core Loss (maximum)	396 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=1.26E-05, c=1.70, d=0.00	
	H <sub>DC</sub>	50 Oe
	Percent Initial Perm(nom.)	50.6%
Percent Initial Perm(min.)	42.9%	
<b>Coating/Pkg</b>	Coating Type:	None
	Voltage Breakdown (min.)	N/A
	Limit	N/A
	Package Quantity	840 Halves/Box

<b>Winding Table</b>	<b>Wire Size</b>	AWG	14	16	18	20	22	24	26	28	30	32	34
		mm	1.600	1.250	1.000	0.800	0.630	0.500	0.400	0.315	0.250	0.200	0.160
	<b>Full Winding</b>	Turns	15	24	37	57	89	137	213	329	509	788	1,219
	Rdc(Ω)	6.3 m	16.0 m	39.2 m	96.0 m	238.3 m	583.4 m	1.4	3.5	8.7	21.5	52.8	

