



**Part Number:** **E100-2**  
Revision 20160713 - Generated 2016-Aug-15



<b>A</b>	25.40 ± 0.25 mm	1.000 ± 0.010 in
<b>B</b>	9.53 ± 0.13 mm	0.375 ± 0.005 in
<b>C</b>	6.35 ± 0.13 mm	0.250 ± 0.005 in
<b>D</b>	6.35 mm (nom.)	0.250 in (nom.)
<b>E</b>	19.05 mm (nom.)	0.750 in (nom.)
<b>F</b>	6.35 ± 0.13 mm	0.250 ± 0.005 in
<b>Mass</b>	(approximate)	5.1 grams/half
<b>Magnetic Dimensions</b>	A <sub>e</sub> - Eff. Mag. Cross Section	0.403 cm <sup>2</sup>
	L <sub>e</sub> - Eff. Mag. Path Length	5.08 cm
	V <sub>e</sub> - Eff. Core Volume	2.05 cm <sup>3</sup>
	WA - Min. Eff. Window Area	0.798 cm <sup>2</sup>
	sa - Surface Area	19.4 cm <sup>2</sup>
	mlt - mean length per turn	5.08 cm
<b>Inductance</b>	μ <sub>i</sub> (reference)	10
	A <sub>L</sub> value (nominal)	21 nH/N <sup>2</sup>
	Test Winding	N=100, #24 AWG
	Frequency	10 kHz
	Voltage on Agilent 4284A	0.18 V
A <sub>L</sub> tolerance	±5%	
<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=4.00E+09, b=3.00E+08, c=2.70E+06, d=9.60E-16	
	B <sub>pk</sub>	140 G
	frequency	100 kHz
	Core Loss (nominal)	18 mW/cm <sup>3</sup>
Core Loss (maximum)	20 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=1.00E-02, b=1.83E-07, c=1.46, d=0.00	
	H <sub>DC</sub>	200 Oe
	Percent Initial Perm(nom.)	95.9%
Percent Initial Perm(min.)	94.8%	
<b>Coating/Pkg</b>	Coating Type:	None
	Voltage Breakdown (min.)	N/A
	Limit	N/A
	Package Quantity	2,000 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	16	25	38	59	92	142	219	340	526	813	1,259
		Rdc(Ω)	6.7 m	16.7 m	40.4 m	99.7 m	247.3 m	607.1 m	1.5	3.7	9.0	22.2	54.8

