



**Part Number:** **E100-18**

Revision 20190524 - Generated 2019-May-30



<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)	6.8 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>											
<b>Inductance</b>	mlt - mean length per turn	5.08 cm											
	μ <sub>i</sub> (reference)	55											
	A <sub>L</sub> value (nominal)	65 nH/N <sup>2</sup>											
	Test Winding	N=100, #24 AWG											
	Frequency	10 kHz											
<b>Core Loss</b>	Voltage on Agilent 4284A	0.18 V											
	A <sub>L</sub> tolerance	±10%											
	$\text{Core Loss (mW/cm}^3\text{)} = \frac{f}{\frac{a}{B_{pk}^3} + \frac{b}{B_{pk}^{2.3}} + \frac{c}{B_{pk}^{1.65}}} + d \cdot B_{pk}^2 \cdot f^2$												
	where B <sub>pk</sub> expressed in gauss, f expressed in hertz, and: a=8.00E+08, b=1.70E+08, c=9.00E+05, d=3.10E-14												
	B <sub>pk</sub>	140 G											
<b>DC Saturation</b>	frequency	100 kHz											
	Core Loss (nominal)	46 mW/cm <sup>3</sup>											
	Core Loss (maximum)	53 mW/cm <sup>3</sup>											
	$\% \mu_i = \frac{1}{a + b \cdot H^c} + d$												
	where H expressed in oersteds, and: a=1.00E-02, b=4.72E-06, c=1.65, d=0.00												
<b>Coating/Pkg</b>	H <sub>DC</sub>	100 Oe											
	Percent Initial Perm(nom.)	51.4%											
	Percent Initial Perm(min.)	43.9%											
	Coating Type:	None											
	Voltage Breakdown (min.)	N/A											
<b>Winding Table</b>	Limit	N/A											
	Package Quantity	2,000 Halves/Box											
	<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	

