



**Part Number:** **E80-45**

Revision 20190524 - Generated 2019-May-30



<b>A</b>	20.19 ± 0.25 mm	0.795 ± 0.010 in											
<b>B</b>	9.93 ± 0.13 mm	0.391 ± 0.005 in											
<b>C</b>	5.84 ± 0.13 mm	0.230 ± 0.005 in											
<b>D</b>	7.11 mm (nom.)	0.280 in (nom.)											
<b>E</b>	14.61 mm (nom.)	0.575 in (nom.)											
<b>F</b>	5.84 ± 0.13 mm	0.230 ± 0.005 in											
<b>Mass</b>	(approximate)	5.9 grams/half											
<b>Magnetic Dimensions</b>	A <sub>e</sub> - Eff. Mag. Cross Section	0.333 cm <sup>2</sup>											
	L <sub>e</sub> - Eff. Mag. Path Length	4.84 cm											
	V <sub>e</sub> - Eff. Core Volume	1.63 cm <sup>3</sup>											
	WA - Min. Eff. Window Area	0.614 cm <sup>2</sup>											
	sa - Surface Area	15.2 cm <sup>2</sup>											
<b>Inductance</b>	mlt - mean length per turn	4.09 cm											
	μ <sub>i</sub> (reference)	100											
	A <sub>L</sub> value (nominal)	95 nH/N <sup>2</sup>											
	Test Winding	N=100, #24 AWG											
	Frequency	10 kHz											
<b>Core Loss</b>	Voltage on Agilent 4284A	0.15 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=1.20E+09, b=1.30E+08, c=2.40E+06, d=1.20E-13												
	B <sub>pk</sub>	140 G											
<b>DC Saturation</b>	frequency	100 kHz											
	Core Loss (nominal)	61 mW/cm <sup>3</sup>											
	Core Loss (maximum)	71 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=2.44E-05, c=1.61, d=0.00												
<b>Coating/Pkg</b>	H <sub>DC</sub>	50 Oe											
	Percent Initial Perm(nom.)	43.3%											
	Percent Initial Perm(min.)	36.3%											
	Coating Type:	None											
	Voltage Breakdown (min.)	N/A											
<b>Winding Table</b>	Limit	N/A											
	Package Quantity	3,000 Halves/Box											
	<b>Wire Size</b>	AWG	16	18	20	22	24	26	28	30	32	34	36
		mm	1.250	1.000	0.800	0.630	0.500	0.400	0.315	0.250	0.200	0.160	0.125
	<b>Full Winding</b>	Turns	19	29	46	70	109	169	261	404	626	969	1,499
	Rdc(Ω)	10.2 m	24.8 m	62.6 m	151.5 m	375.1 m	925.0 m	2.3	5.6	13.8	33.9	83.5	

