



**Part Number:** **E49-18**

Revision 20190524 - Generated 2019-May-30



<b>A</b>	12.70 ± 0.25 mm	0.500 ± 0.010 in											
<b>B</b>	5.56 ± 0.13 mm	0.219 ± 0.005 in											
<b>C</b>	3.18 ± 0.13 mm	0.125 ± 0.005 in											
<b>D</b>	3.96 mm (nom.)	0.156 in (nom.)											
<b>E</b>	9.53 mm (nom.)	0.375 in (nom.)											
<b>F</b>	3.18 ± 0.13 mm	0.125 ± 0.005 in											
<b>Mass</b>	(approximate)	0.95 grams/half											
<b>Magnetic Dimensions</b>	A <sub>e</sub> - Eff. Mag. Cross Section	0.101 cm <sup>2</sup>											
	L <sub>e</sub> - Eff. Mag. Path Length	2.86 cm											
	V <sub>e</sub> - Eff. Core Volume	0.288 cm <sup>3</sup>											
	WA - Min. Eff. Window Area	0.247 cm <sup>2</sup>											
	sa - Surface Area	5.45 cm <sup>2</sup>											
<b>Inductance</b>	mlt - mean length per turn	2.54 cm											
	μ <sub>i</sub> (reference)	55											
	A <sub>L</sub> value (nominal)	29 nH/N <sup>2</sup>											
	Test Winding	N=100, #28 AWG											
	Frequency	10 kHz											
<b>Core Loss</b>	Voltage on Agilent 4284A	0.045 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	10,000 Halves/Box											
	<b>Wire Size</b>	AWG	20	22	24	26	28	30	32	34	36	38	40
		mm	0.800	0.630	0.500	0.400	0.315	0.250	0.200	0.160	0.125	0.100	0.080
	<b>Full Winding</b>	Turns	18	28	44	68	105	162	251	389	602	931	1,442
Rdc(Ω)		15.2 m	37.6 m	94.1 m	231.2 m	567.7 m	1.4	3.4	8.5	20.8	51.2	126.2	

