



Part Number: **E49-52**

Revision 20190524 - Generated 2019-May-30



A	12.70 ± 0.25 mm	0.500 ± 0.010 in											
B	5.56 ± 0.13 mm	0.219 ± 0.005 in											
C	3.18 ± 0.13 mm	0.125 ± 0.005 in											
D	3.96 mm (nom.)	0.156 in (nom.)											
E	9.53 mm (nom.)	0.375 in (nom.)											
F	3.18 ± 0.13 mm	0.125 ± 0.005 in											
Mass	(approximate)	1.0 grams/half											
Magnetic Dimensions	A _e - Eff. Mag. Cross Section	0.101 cm ²											
	L _e - Eff. Mag. Path Length	2.86 cm											
	V _e - Eff. Core Volume	0.288 cm ³											
	WA - Min. Eff. Window Area	0.247 cm ²											
	sa - Surface Area	5.45 cm ²											
Inductance	mlt - mean length per turn	2.54 cm											
	μ _i (reference)	75											
	A _L value (nominal)	38 nH/N ²											
	Test Winding	N=100, #28 AWG											
	Frequency	10 kHz											
Core Loss	Voltage on Agilent 4284A	0.045 V											
	A _L 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 _{pk} expressed in gauss, f expressed in hertz, and: a=1.00E+09, b=1.10E+08, c=2.10E+06, d=6.90E-14												
	B _{pk}	140 G											
DC Saturation	frequency	100 kHz											
	Core Loss (nominal)	58 mW/cm ³											
	Core Loss (maximum)	67 mW/cm ³											
	$\% \mu_i = \frac{1}{a + b \cdot H^c} + d$												
	where H expressed in oersteds, and: a=1.00E-02, b=4.66E-06, c=1.84, d=0.00												
Coating/Pkg	H _{DC}	50 Oe											
	Percent Initial Perm(nom.)	61.6%											
	Percent Initial Perm(min.)	53.4%											
	Coating Type:	None											
	Voltage Breakdown (min.)	N/A											
Winding Table	Limit	N/A											
	Package Quantity	10,000 Halves/Box											
	Wire Size	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
	Full Winding	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	

