



Part Number: **E100-52**

Revision 20190524 - Generated 2019-May-30



A	25.40 ± 0.25 mm	1.000 ± 0.010 in											
B	9.53 ± 0.13 mm	0.375 ± 0.005 in											
C	6.35 ± 0.13 mm	0.250 ± 0.005 in											
D	6.35 mm (nom.)	0.250 in (nom.)											
E	19.05 mm (nom.)	0.750 in (nom.)											
F	6.35 ± 0.13 mm	0.250 ± 0.005 in											
Mass	(approximate)	7.2 grams/half											
Magnetic Dimensions	A _e - Eff. Mag. Cross Section	0.403 cm ²											
	L _e - Eff. Mag. Path Length	5.08 cm											
	V _e - Eff. Core Volume	2.05 cm ³											
	WA - Min. Eff. Window Area	0.798 cm ²											
	sa - Surface Area	19.4 cm ²											
Inductance	mlt - mean length per turn	5.08 cm											
	μ _i (reference)	75											
	A _L value (nominal)	85 nH/N ²											
	Test Winding	N=100, #24 AWG											
	Frequency	10 kHz											
Core Loss	Voltage on Agilent 4284A	0.18 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	2,000 Halves/Box											
	Wire Size	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
	Full Winding	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	

