



Part Number: **E100-52**
Revision 20160713 - Generated 2016-Aug-15



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
	mlt - mean length per turn	5.08 cm
Inductance	μ _i (reference)	75
	A _L value (nominal)	85 nH/N ²
	Test Winding	N=100, #24 AWG
	Frequency	10 kHz
	Voltage on Agilent 4284A	0.18 V
	A _L tolerance	±10%
Core Loss	$\text{Core Loss (mW/cm}^3\text{)} = \frac{f}{\frac{a}{B_{pk}^3} + \frac{b}{B_{pk}^{2.3}} + \frac{c}{B_{pk}^{1.65}}} + d \cdot B_{pk}^2 \cdot f^2$	
	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
	frequency	100 kHz
	Core Loss (nominal)	58 mW/cm ³
Core Loss (maximum)	67 mW/cm ³	
DC Saturation	$\% \mu_i = \frac{1}{a + b \cdot H^c} + d$	
	where H expressed in oersteds, and: a=1.00E-02, b=4.66E-06, c=1.84, d=0.00	
	H _{DC}	50 Oe
	Percent Initial Perm(nom.)	61.6%
Percent Initial Perm(min.)	53.4%	
Coating/Pkg	Coating Type:	None
	Voltage Breakdown (min.)	N/A
	Limit	N/A
	Package Quantity	2,000 Halves/Box

Winding Table	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

