



Part Number: **E137-52**
Revision 20160713 - Generated 2016-Aug-15



A	34.93 ± 0.38 mm	1.375 ± 0.015 in
B	14.53 ± 0.20 mm	0.572 ± 0.008 in
C	9.53 ± 0.18 mm	0.375 ± 0.007 in
D	9.78 mm (nom.)	0.385 in (nom.)
E	25.40 mm (nom.)	1.000 in (nom.)
F	9.53 ± 0.18 mm	0.375 ± 0.007 in
Mass	(approximate)	24 grams/half
Magnetic Dimensions	A _e - Eff. Mag. Cross Section	0.907 cm ²
	L _e - Eff. Mag. Path Length	7.40 cm
	V _e - Eff. Core Volume	6.72 cm ³
	WA - Min. Eff. Window Area	1.54 cm ²
	sa - Surface Area	39.6 cm ²
	mlt - mean length per turn	6.99 cm
Inductance	μ _i (reference)	75
	A _L value (nominal)	131 nH/N ²
	Test Winding	N=100, #20 AWG
	Frequency	10 kHz
	Voltage on Agilent 4284A	0.40 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, Green/Blue Stripes
	Voltage Breakdown (min.)	N/A
	Limit	N/A
	Package Quantity	800 Halves/Box

Winding Table	Wire Size	AWG	12	14	16	18	20	22	24	26	28	30	32
		mm	2.000	1.600	1.250	1.000	0.800	0.630	0.500	0.400	0.315	0.250	0.200
	Full Winding	Turns	20	31	47	74	114	176	273	422	653	1,010	1,564
		Rdc(Ω)	7.3 m	17.9 m	43.2 m	108.1 m	264.9 m	650.5 m	1.6	3.9	9.7	23.9	58.8

