



Part Number: **E137-52**

Revision 20190524 - Generated 2019-May-30



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											
Inductance	mlt - mean length per turn	6.99 cm											
	μ _i (reference)	75											
	A _L value (nominal)	131 nH/N ²											
	Test Winding	N=100, #20 AWG											
	Frequency	10 kHz											
Core Loss	Voltage on Agilent 4284A	0.40 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, Green/Blue Stripes											
	Voltage Breakdown (min.)	N/A											
Winding Table	Limit	N/A											
	Package Quantity	800 Halves/Box											
	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	

