



**Part Number:** **E137-2**

Revision 20190524 - Generated 2019-May-30



<b>A</b>	34.93 ± 0.38 mm	1.375 ± 0.015 in											
<b>B</b>	14.53 ± 0.20 mm	0.572 ± 0.008 in											
<b>C</b>	9.53 ± 0.18 mm	0.375 ± 0.007 in											
<b>D</b>	9.78 mm (nom.)	0.385 in (nom.)											
<b>E</b>	25.40 mm (nom.)	1.000 in (nom.)											
<b>F</b>	9.53 ± 0.18 mm	0.375 ± 0.007 in											
<b>Mass</b>	(approximate)	17 grams/half											
<b>Magnetic Dimensions</b>	A <sub>e</sub> - Eff. Mag. Cross Section	0.907 cm <sup>2</sup>											
	L <sub>e</sub> - Eff. Mag. Path Length	7.40 cm											
	V <sub>e</sub> - Eff. Core Volume	6.72 cm <sup>3</sup>											
	WA - Min. Eff. Window Area	1.54 cm <sup>2</sup>											
	sa - Surface Area	39.6 cm <sup>2</sup>											
<b>Inductance</b>	mlt - mean length per turn	6.99 cm											
	μ <sub>i</sub> (reference)	10											
	A <sub>L</sub> value (nominal)	32 nH/N <sup>2</sup>											
	Test Winding	N=100, #20 AWG											
	Frequency	10 kHz											
<b>Core Loss</b>	Voltage on Agilent 4284A	0.40 V											
	A <sub>L</sub> tolerance	±5%											
	$\text{Core Loss (mW/cm}^3\text{)} = \frac{f}{\frac{a}{B_{pk}^3} + \frac{b}{B_{pk}^{2.3}} + \frac{c}{B_{pk}^{1.65}}} + d \cdot B_{pk}^2 \cdot f^2$												
	where B <sub>pk</sub> expressed in gauss, f expressed in hertz, and: a=4.00E+09, b=3.00E+08, c=2.70E+06, d=9.60E-16												
	B <sub>pk</sub>	140 G											
<b>DC Saturation</b>	frequency	100 kHz											
	Core Loss (nominal)	18 mW/cm <sup>3</sup>											
	Core Loss (maximum)	20 mW/cm <sup>3</sup>											
	$\% \mu_i = \frac{1}{a + b \cdot H^c} + d$												
	where H expressed in oersteds, and: a=1.00E-02, b=1.83E-07, c=1.46, d=0.00												
<b>Coating/Pkg</b>	H <sub>DC</sub>	200 Oe											
	Percent Initial Perm(nom.)	95.9%											
	Percent Initial Perm(min.)	94.8%											
	Coating Type:	None, Red/Clear Stripes											
<b>Winding Table</b>	Voltage Breakdown (min.)	N/A											
	Limit	N/A											
	Package Quantity	800 Halves/Box											
	<b>Wire Size</b>	AWG	12	14	16	18	20	22	24	26	28	30	32
<b>Full Winding</b>		mm	2.000	1.600	1.250	1.000	0.800	0.630	0.500	0.400	0.315	0.250	0.200
		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

