



Part Number: **E187-8**

Revision 20190524 - Generated 2019-May-30



A	47.37 ± 0.38 mm	1.865 ± 0.015 in											
B	19.71 ± 0.20 mm	0.776 ± 0.008 in											
C	15.75 ± 0.25 mm	0.620 ± 0.010 in											
D	12.09 mm (nom.)	0.476 in (nom.)											
E	31.75 mm (nom.)	1.250 in (nom.)											
F	15.75 ± 0.18 mm	0.620 ± 0.007 in											
Mass	(approximate)	76 grams/half											
Magnetic Dimensions	A _e - Eff. Mag. Cross Section	2.48 cm ²											
	L _e - Eff. Mag. Path Length	9.53 cm											
	V _e - Eff. Core Volume	23.3 cm ³											
	WA - Min. Eff. Window Area	1.91 cm ²											
	sa - Surface Area	73.6 cm ²											
Inductance	mlt - mean length per turn	9.50 cm											
	μ _i (reference)	35											
	A _L value (nominal)	144 nH/N ²											
	Test Winding	N=100, #20 AWG											
	Frequency	10 kHz											
Core Loss	Voltage on Agilent 4284A	1.1 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=1.90E+09, b=2.00E+08, c=9.00E+05, d=5.00E-15												
	B _{pk}	140 G											
DC Saturation	frequency	100 kHz											
	Core Loss (nominal)	32 mW/cm ³											
	Core Loss (maximum)	36 mW/cm ³											
	$\% \mu_i = \frac{1}{a + b \cdot H^c} + d$												
	where H expressed in oersteds, and: a=1.00E-02, b=3.49E-06, c=1.43, d=0.00												
Coating/Pkg	H _{DC}	200 Oe											
	Percent Initial Perm(nom.)	60.1%											
	Percent Initial Perm(min.)	53.7%											
	Coating Type:	None, Yellow/Red Stripes											
	Voltage Breakdown (min.)	N/A											
Winding Table	Limit	N/A											
	Package Quantity	240 Halves/Box											
	Wire Size	AWG	10	12	14	16	18	20	22	24	26	28	30
		mm	2.500	2.000	1.600	1.250	1.000	0.800	0.630	0.500	0.400	0.315	0.250
	Full Winding	Turns	16	25	38	59	92	142	219	340	526	814	1,259
Rdc(Ω)		5.0 m	12.4 m	29.9 m	73.7 m	182.8 m	448.8 m	1.1	2.7	6.7	16.5	40.5	

