



Part Number: **E168-40A**

Revision 20190524 - Generated 2019-May-30



A	42.80 ± 0.38 mm	1.685 ± 0.015 in											
B	21.08 ± 0.20 mm	0.830 ± 0.008 in											
C	19.99 ± 0.25 mm	0.787 ± 0.010 in											
D	15.37 mm (nom.)	0.605 in (nom.)											
E	30.73 mm (nom.)	1.210 in (nom.)											
F	12.07 ± 0.18 mm	0.475 ± 0.007 in											
Mass	(approximate)	85 grams/half											
Magnetic Dimensions	A _e - Eff. Mag. Cross Section	2.41 cm ²											
	L _e - Eff. Mag. Path Length	10.4 cm											
	V _e - Eff. Core Volume	24.6 cm ³											
	WA - Min. Eff. Window Area	2.84 cm ²											
	sa - Surface Area	81.5 cm ²											
Inductance	mlt - mean length per turn	10.1 cm											
	μ _i (reference)	60											
	A _L value (nominal)	196 nH/N ²											
	Test Winding	N=100, #18 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=1.10E+09, b=3.30E+07, c=2.50E+06, d=3.10E-13												
	B _{pk}	140 G											
DC Saturation	frequency	100 kHz											
	Core Loss (nominal)	127 mW/cm ³											
	Core Loss (maximum)	146 mW/cm ³											
	$\% \mu_i = \frac{1}{a + b \cdot H^c} + d$												
	where H expressed in oersteds, and: a=1.00E-02, b=8.93E-06, c=1.61, d=0.00												
Coating/Pkg	H _{DC}	50 Oe											
	Percent Initial Perm(nom.)	67.0%											
	Percent Initial Perm(min.)	60.2%											
	Coating Type:	None, Green/Yellow Stripes											
	Voltage Breakdown (min.)	N/A											
Winding Table	Limit	N/A											
	Package Quantity	150 Halves/Box											
	Wire Size	AWG	8	10	12	14	16	18	20	22	24	26	28
		mm	3.150	2.500	2.000	1.600	1.250	1.000	0.800	0.630	0.500	0.400	0.315
	Full Winding	Turns	15	24	37	57	88	136	211	326	505	781	1,209
Rdc(Ω)		3.1 m	8.0 m	19.5 m	47.8 m	117.4 m	288.6 m	712.2 m	1.7	4.3	10.6	26.1	

