



Part Number: **E118-40**

Revision 20190524 - Generated 2019-May-30



A	30.10 ± 0.25 mm	1.185 ± 0.010 in											
B	15.06 ± 0.13 mm	0.593 ± 0.005 in											
C	7.06 ± 0.13 mm	0.278 ± 0.005 in											
D	9.93 mm (nom.)	0.391 in (nom.)											
E	19.86 mm (nom.)	0.782 in (nom.)											
F	7.06 ± 0.13 mm	0.278 ± 0.005 in											
Mass	(approximate)	16 grams/half											
Magnetic Dimensions	A _e - Eff. Mag. Cross Section	0.498 cm ²											
	L _e - Eff. Mag. Path Length	7.14 cm											
	V _e - Eff. Core Volume	4.60 cm ³											
	WA - Min. Eff. Window Area	1.26 cm ²											
	sa - Surface Area	31.7 cm ²											
Inductance	mlt - mean length per turn	5.38 cm											
	μ _i (reference)	60											
	A _L value (nominal)	80 nH/N ²											
	Test Winding	N=100, #20 AWG											
	Frequency	10 kHz											
Core Loss	Voltage on Agilent 4284A	0.22 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	1,225 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	16	25	39	60	93	144	223	346	535	829	1,282
Rdc(Ω)		4.5 m	11.1 m	27.6 m	67.6 m	166.6 m	410.3 m	1.0	2.5	6.1	15.1	37.2	

