



Part Number: **E118-40**
Revision 20160713 - Generated 2016-Aug-15



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
	mlt - mean length per turn	5.38 cm
Inductance	μ _i (reference)	60
	A _L value (nominal)	80 nH/N ²
	Test Winding	N=100, #0 AWG
	Frequency	10 kHz
	Voltage on Agilent 4284A	0.22 V
A _L tolerance	±10%	
Core Loss	$\text{Core Loss (mW/cm}^3\text{)} = \frac{f}{\frac{a}{B_{pk}^3} + \frac{b}{B_{pk}^{2.3}} + \frac{c}{B_{pk}^{1.65}}} + d \cdot B_{pk}^2 \cdot f^2$	
	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
	frequency	100 kHz
	Core Loss (nominal)	127 mW/cm ³
Core Loss (maximum)	146 mW/cm ³	
DC Saturation	$\% \mu_i = \frac{1}{a + b \cdot H^c} + d$	
	where H expressed in oersteds, and: a=1.00E-02, b=8.93E-06, c=1.61, d=0.00	
	H _{DC}	50 Oe
	Percent Initial Perm(nom.)	67.0%
Percent Initial Perm(min.)	60.2%	
Coating/Pkg	Coating Type:	None, Green/Yellow Stripes
	Voltage Breakdown (min.)	N/A
	Limit	N/A
	Package Quantity	1,225 Halves/Box

Winding Table	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

