



**Part Number:** EMS-0432120-040

Revision 20160816 - Generated 2016-Aug-16



<b>A</b>	42.8 ± 0.64 mm	1.685 ± 0.025 in
<b>B</b>	21.1 ± 0.33 mm	0.831 ± 0.013 in
<b>C</b>	20 ± 0.25 mm	0.787 ± 0.010 in
<b>D</b>	15 mm (min.)	0.591 in (min.)
<b>E</b>	30.4 mm (min.)	1.197 in (min.)
<b>F</b>	11.9 ± 0.25 mm	0.469 ± 0.010 in
<b>Mass</b>	(approximate)	63 grams/half
<b>Magnetic Dimensions</b>	A <sub>e</sub> - Eff. Mag. Cross Section	2.37 cm <sup>2</sup>
	L <sub>e</sub> - Eff. Mag. Path Length	9.84 cm
	V <sub>e</sub> - Eff. Core Volume	23.3 cm <sup>3</sup>
	WA - Min. Eff. Window Area	2.74 cm <sup>2</sup>
	sa - Surface Area	81.3 cm <sup>2</sup>
	mlt - mean length per turn	10.1 cm
<b>Inductance</b>	μ <sub>i</sub> (reference)	40
	A <sub>L</sub> value (nominal)	140 nH/N <sup>2</sup>
	Test Winding	N=100, #18 AWG
	Frequency	10 kHz
	Voltage on Agilent 4284A	1.1 V
A <sub>L</sub> tolerance	±8%	
<b>Core Loss</b>	$\text{Core Loss (mW/cm}^3\text{)} = \frac{f}{\frac{a}{B_{pk}^3} + \frac{b}{B_{pk}^{2.3}} + \frac{c}{B_{pk}^{1.65}}} + d \cdot B_{pk}^2 \cdot f^2$	
	where B <sub>pk</sub> expressed in gauss, f expressed in hertz, and: a=1.00E+06, b=6.80E+08, c=8.07E+06, d=2.16E-14	
	B <sub>pk</sub>	1000 G
	frequency	50 kHz
	Core Loss (nominal)	338 mW/cm <sup>3</sup>
Core Loss (maximum)	388 mW/cm <sup>3</sup>	
<b>DC Saturation</b>	$\% \mu_i = \frac{1}{a + b \cdot H^c} + d$	
	where H expressed in oersteds, and: a=0.01, b=2.54E-06, c=1.68, d=0.00	
	H <sub>DC</sub>	100 Oe
	Percent Initial Perm(nom.)	63.2%
	Percent Initial Perm(min.)	55.9%
<b>Coating/Pkg</b>	Coating Type:	None
	Voltage Breakdown (min.)	N/A
	Limit	N/A
	Package Quantity	140 Halves/Box

<b>Winding Table</b>	<b>Wire Size</b>	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
	<b>Full Winding</b>	Turns	15	23	35	55	85	131	203	314	486	752	1,164
	Rdc(Ω)		3.1 m	7.6 m	18.3 m	45.9 m	112.7 m	276.2 m	680.8 m	1.7	4.1	10.1	25.0

