



**Part Number:** EMS-1144635-075

Revision 20160816 - Generated 2016-Aug-16



<b>A</b>	114 ± 1.70 mm	4.488 ± 0.067 in
<b>B</b>	46.2 ± 0.69 mm	1.819 ± 0.027 in
<b>C</b>	34.9 ± 0.58 mm	1.374 ± 0.023 in
<b>D</b>	28.6 mm (min.)	1.126 in (min.)
<b>E</b>	79.3 mm (min.)	3.122 in (min.)
<b>F</b>	34.9 ± 0.69 mm	1.374 ± 0.027 in
<b>Mass</b>	(approximate)	820 grams/half
<b>Magnetic Dimensions</b>	A <sub>e</sub> - Eff. Mag. Cross Section	12.2 cm <sup>2</sup>
	L <sub>e</sub> - Eff. Mag. Path Length	22.9 cm
	V <sub>e</sub> - Eff. Core Volume	280 cm <sup>3</sup>
	WA - Min. Eff. Window Area	12.5 cm <sup>2</sup>
	sa - Surface Area	415 cm <sup>2</sup>
	mlt - mean length per turn	22.8 cm
<b>Inductance</b>	μ <sub>i</sub> (reference)	75
	A <sub>L</sub> value (nominal)	569 nH/N <sup>2</sup>
	Test Winding	N=100, #14 AWG
	Frequency	10 kHz
	Voltage on Agilent 4284A	5.4 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=7.89E+09, b=7.11E+08, c=8.98E+06, d=2.85E-14	
	B <sub>pk</sub>	1000 G
	frequency	50 kHz
	Core Loss (nominal)	323 mW/cm <sup>3</sup>
Core Loss (maximum)	372 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=3.41E-06, c=1.84, d=0.00	
	H <sub>DC</sub>	50 Oe
	Percent Initial Perm(nom.)	68.6%
Percent Initial Perm(min.)	60.9%	
<b>Coating/Pkg</b>	Coating Type:	None
	Voltage Breakdown (min.)	N/A
	Limit	N/A
	Package Quantity	16 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	67	104	161	250	387	599	927	1,434	2,220	3,436	5,317
	Rdc(Ω)		31.5 m	77.7 m	191.2 m	472.3 m	1.2	2.9	7.0	17.3	42.7	105.0	258.5

