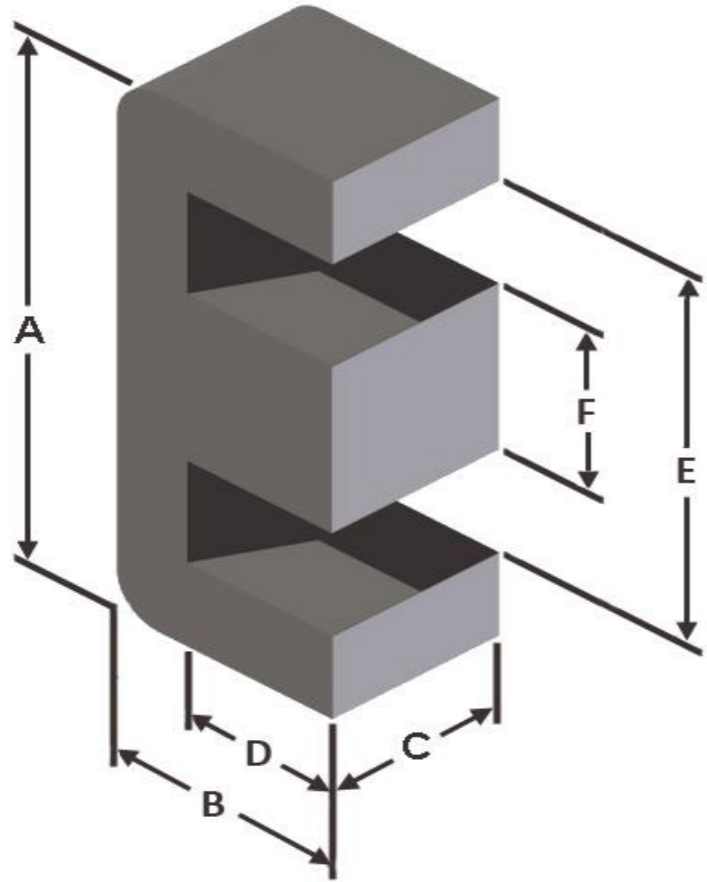




**Part Number:** EMS-0803820-090

Revision 20160816 - Generated 2016-Aug-16



<b>A</b>	80 ± 1.19 mm	3.150 ± 0.047 in
<b>B</b>	38.1 ± 0.58 mm	1.500 ± 0.023 in
<b>C</b>	19.8 ± 0.41 mm	0.780 ± 0.016 in
<b>D</b>	28.1 mm (min.)	1.106 in (min.)
<b>E</b>	59.3 mm (min.)	2.335 in (min.)
<b>F</b>	19.8 ± 0.41 mm	0.780 ± 0.016 in
<b>Mass</b>	(approximate)	210 grams/half
<b>Magnetic Dimensions</b>	A <sub>e</sub> - Eff. Mag. Cross Section	3.89 cm <sup>2</sup>
	L <sub>e</sub> - Eff. Mag. Path Length	18.5 cm
	V <sub>e</sub> - Eff. Core Volume	72.1 cm <sup>3</sup>
	WA - Min. Eff. Window Area	11.0 cm <sup>2</sup>
	sa - Surface Area	229 cm <sup>2</sup>
	mlt - mean length per turn	15.8 cm
<b>Inductance</b>	μ <sub>i</sub> (reference)	90
	A <sub>L</sub> value (nominal)	264 nH/N <sup>2</sup>
	Test Winding	N=100, #14 AWG
	Frequency	10 kHz
	Voltage on Agilent 4284A	1.7 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=1.46E+09, b=8.28E+08, c=4.62E+06, d=1.09E-14	
	B <sub>pk</sub>	1000 G
	frequency	50 kHz
	Core Loss (nominal)	345 mW/cm <sup>3</sup>
Core Loss (maximum)	396 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=1.26E-05, c=1.70, d=0.00	
	H <sub>DC</sub>	50 Oe
	Percent Initial Perm(nom.)	50.6%
Percent Initial Perm(min.)	42.9%	
<b>Coating/Pkg</b>	Coating Type:	None
	Voltage Breakdown (min.)	N/A
	Limit	N/A
	Package Quantity	60 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	59	92	142	220	340	526	814	1,260	1,950	3,019	4,672
	Rdc(Ω)		19.2 m	47.6 m	116.8 m	287.9 m	707.5 m	1.7	4.3	10.5	26.0	63.9	157.3

