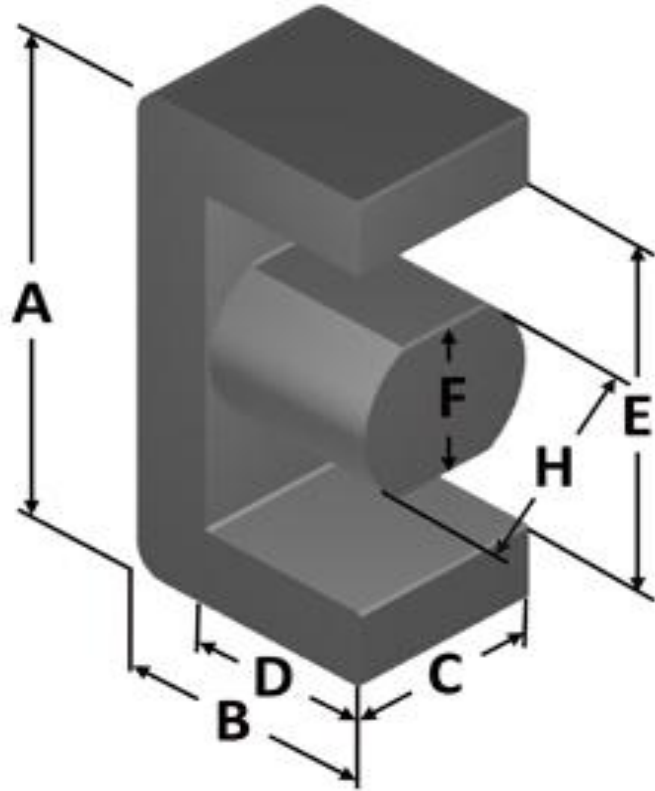




Part Number: **EM221-8**
 Revision 20190524 - Generated 2019-May-30



A	56.13 ± 0.38 mm	2.210 ± 0.015 in
B	27.94 ± 0.19 mm	1.100 ± 0.008 in
C	27.18 ± 0.25 mm	1.070 ± 0.010 in
D	22.35 mm (nom.)	0.880 in (nom.)
E	44.70 mm (nom.)	1.760 in (nom.)
F	21.59 ± 0.25 mm	0.850 ± 0.010 in
H	21.59 ± 0.38 mm	0.850 ± 0.015 in
Mass	(approximate)	140 grams/half
Magnetic Dimensions	A _e - Eff. Mag. Cross Section	3.22 cm ²
	L _e - Eff. Mag. Path Length	13.7 cm
	V _e - Eff. Core Volume	44.0 cm ³
	WA - Min. Eff. Window Area	5.11 cm ²
	sa - Surface Area	144 cm ²
	mlt - mean length per turn	14.4 cm
Inductance	μ _i (reference)	35
	A _L value (nominal)	89.9 nH/N ²
	Test Winding	N=100, #18 AWG
	Frequency	10 kHz
	Voltage on Agilent 4284A	1.4 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=1.90E+09, b=2.00E+08, c=9.00E+05, d=5.00E-15	
	B _{pk}	140 G
	frequency	100 kHz
	Core Loss (nominal)	32 mW/cm ³
	Core Loss (maximum)	36 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=3.49E-06, c=1.43, d=0.00	
	H _{DC}	200 Oe
	Percent Initial Perm(nom.)	60.1%
	Percent Initial Perm(min.)	53.7%
Coating/Pkg	Coating Type:	None, Yellow/Red Stripes
	Voltage Breakdown (min.)	N/A
	Limit	N/A
	Package Quantity	56 Halves/Box

Winding Table	Wire Size	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
	Full Winding	Turns	28	43	66	102	158	245	379	586	907	1,404	2,173
	Rdc(Ω)		8.3 m	20.2 m	49.3 m	121.3 m	298.8 m	736.9 m	1.8	4.5	11.0	27.0	66.5

