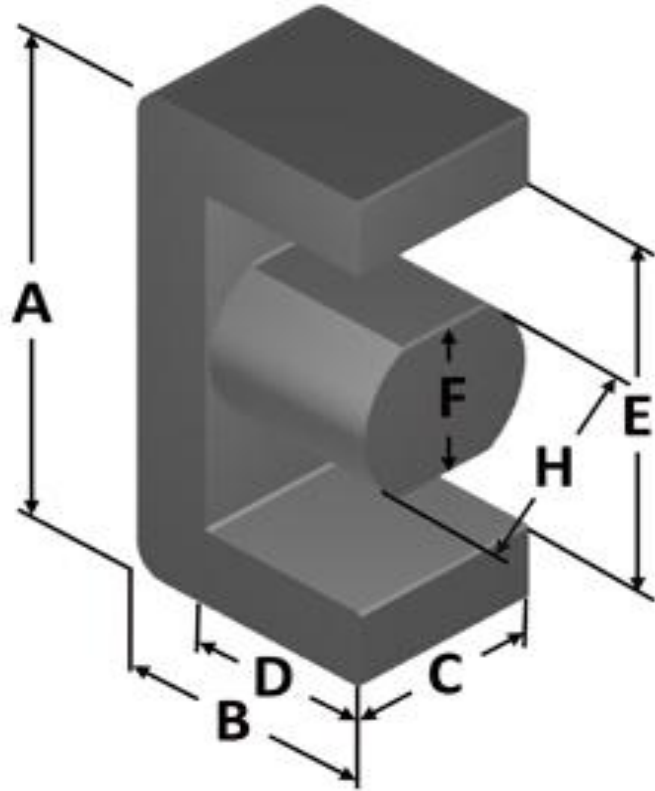




Part Number: **EM193-52**
 Revision 20190524 - Generated 2019-May-30



A	49.02 ± 0.38 mm	1.930 ± 0.015 in
B	24.51 ± 0.19 mm	0.965 ± 0.008 in
C	22.28 ± 0.25 mm	0.877 ± 0.010 in
D	19.43 mm (nom.)	0.765 in (nom.)
E	38.86 mm (nom.)	1.530 in (nom.)
F	17.17 ± 0.25 mm	0.676 ± 0.010 in
H	17.17 ± 0.38 mm	0.676 ± 0.015 in
Mass	(approximate)	96 grams/half
Magnetic Dimensions	A _e - Eff. Mag. Cross Section	2.28 cm ²
	L _e - Eff. Mag. Path Length	12.1 cm
	V _e - Eff. Core Volume	27.5 cm ³
	WA - Min. Eff. Window Area	4.17 cm ²
	sa - Surface Area	109 cm ²
	mlt - mean length per turn	12.2 cm
Inductance	μ _i (reference)	75
	A _L value (nominal)	168 nH/N ²
	Test Winding	N=100, #18 AWG
	Frequency	100 kHz
	Voltage on Agilent 4284A	5.0 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=1.00E+09, b=1.10E+08, c=2.10E+06, d=6.90E-14	
	B _{pk}	140 G
	frequency	100 kHz
	Core Loss (nominal)	58 mW/cm ³
Core Loss (maximum)	67 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=4.66E-06, c=1.84, d=0.00	
	H _{DC}	50 Oe
	Percent Initial Perm(nom.)	61.6%
Percent Initial Perm(min.)	53.4%	
Coating/Pkg	Coating Type:	None, Green/Blue Stripes
	Voltage Breakdown (min.)	N/A
	Limit	N/A
	Package Quantity	150 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	22	35	54	83	129	199	309	478	740	1,145	1,772
	Rdc(Ω)	5.5 m	14.0 m	34.3 m	83.9 m	207.5 m	509.0 m	1.3	3.1	7.6	18.7	46.1	

