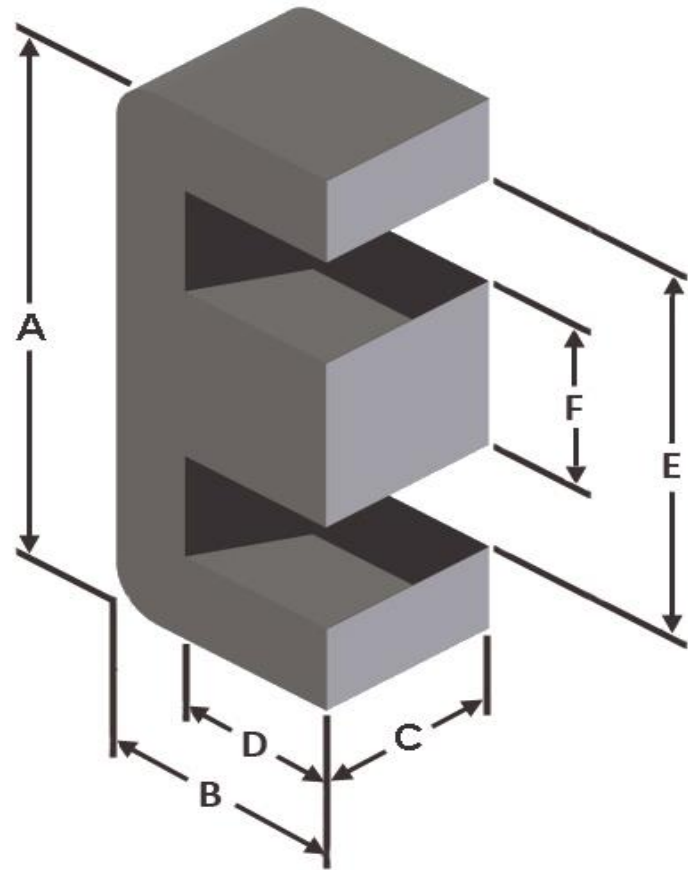




Part Number: **E50-52**

Revision 20160713 - Generated 2016-Aug-15



A	12.83 ± 0.13 mm	0.505 ± 0.005 in
B	6.40 ± 0.08 mm	0.252 ± 0.003 in
C	3.76 ± 0.10 mm	0.148 ± 0.004 in
D	4.50 mm (nom.)	0.177 in (nom.)
E	8.99 mm (nom.)	0.354 in (nom.)
F	3.78 ± 0.10 mm	0.149 ± 0.004 in
Mass	(approximate)	1.5 grams/half
Magnetic Dimensions	A _e - Eff. Mag. Cross Section	0.143 cm ²
	L _e - Eff. Mag. Path Length	3.08 cm
	V _e - Eff. Core Volume	0.441 cm ³
	WA - Min. Eff. Window Area	0.230 cm ²
	sa - Surface Area	6.15 cm ²
	mlt - mean length per turn	2.55 cm
Inductance	μ _i (reference)	75
	A _L value (nominal)	47 nH/N ²
	Test Winding	N=100, #28 AWG
	Frequency	10 kHz
	Voltage on Agilent 4284A	0.063 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
	Voltage Breakdown (min.)	N/A
	Limit	N/A
	Package Quantity	10,000 Halves/Box

Winding Table	Wire Size	AWG	20	22	24	26	28	30	32	34	36	38	40
		mm	0.800	0.630	0.500	0.400	0.315	0.250	0.200	0.160	0.125	0.100	0.080
	Full Winding	Turns	17	26	41	63	98	151	234	362	560	867	1,342
	Rdc(Ω)	14.4 m	35.1 m	88.0 m	215.0 m	531.9 m	1.3	3.2	7.9	19.4	47.9	117.9	

