



Part Number: **E168-8A**
Revision 20160713 - Generated 2016-Aug-15



| | | |
|----------------------------|--|--------------------------|
| A | 42.80 ± 0.38 mm | 1.685 ± 0.015 in |
| B | 21.08 ± 0.20 mm | 0.830 ± 0.008 in |
| C | 19.99 ± 0.25 mm | 0.787 ± 0.010 in |
| D | 15.37 mm (nom.) | 0.605 in (nom.) |
| E | 30.73 mm (nom.) | 1.210 in (nom.) |
| F | 12.07 ± 0.18 mm | 0.475 ± 0.007 in |
| Mass | (approximate) | 80 grams/half |
| Magnetic Dimensions | A _e - Eff. Mag. Cross Section | 2.41 cm ² |
| | L _e - Eff. Mag. Path Length | 10.4 cm |
| | V _e - Eff. Core Volume | 24.6 cm ³ |
| | WA - Min. Eff. Window Area | 2.84 cm ² |
| | sa - Surface Area | 81.5 cm ² |
| | mlt - mean length per turn | 10.1 cm |
| Inductance | μ _i (reference) | 35 |
| | A _L value (nominal) | 116 nH/N ² |
| | Test Winding | N=100, #18 AWG |
| | Frequency | 10 kHz |
| | Voltage on Agilent 4284A | 1.1 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 | 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 | 15 | 24 | 37 | 57 | 88 | 136 | 211 | 326 | 505 | 781 | 1,209 |
| | Rdc(Ω) | | 3.1 m | 8.0 m | 19.5 m | 47.8 m | 117.4 m | 288.6 m | 712.2 m | 1.7 | 4.3 | 10.6 | 26.1 |

