



Part Number: **E168-8**

Revision 20190524 - Generated 2019-May-30



| | | | | | | | | | | | | | |
|----------------------------|--|--------------------------|-------|--------|--------|---------|---------|---------|-------|-------|-------|-------|-------|
| A | 42.80 ± 0.38 mm | 1.685 ± 0.015 in | | | | | | | | | | | |
| B | 21.08 ± 0.20 mm | 0.830 ± 0.008 in | | | | | | | | | | | |
| C | 14.99 ± 0.25 mm | 0.590 ± 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) | 60 grams/half | | | | | | | | | | | |
| Magnetic Dimensions | A _e - Eff. Mag. Cross Section | 1.81 cm ² | | | | | | | | | | | |
| | L _e - Eff. Mag. Path Length | 10.4 cm | | | | | | | | | | | |
| | V _e - Eff. Core Volume | 18.5 cm ³ | | | | | | | | | | | |
| | WA - Min. Eff. Window Area | 2.84 cm ² | | | | | | | | | | | |
| | sa - Surface Area | 73.0 cm ² | | | | | | | | | | | |
| Inductance | mlt - mean length per turn | 9.14 cm | | | | | | | | | | | |
| | μ _i (reference) | 35 | | | | | | | | | | | |
| | A _L value (nominal) | 97 nH/N ² | | | | | | | | | | | |
| | Test Winding | N=100, #18 AWG | | | | | | | | | | | |
| | Frequency | 10 kHz | | | | | | | | | | | |
| Core Loss | Voltage on Agilent 4284A | 0.80 V | | | | | | | | | | | |
| | A _L tolerance | ±10% | | | | | | | | | | | |
| | $\text{Core Loss (mW/cm}^3\text{)} = \frac{f}{\frac{a}{B_{pk}^3} + \frac{b}{B_{pk}^{2.3}} + \frac{c}{B_{pk}^{1.65}}} + d \cdot B_{pk}^2 \cdot f^2$ | | | | | | | | | | | | |
| | 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 | | | | | | | | | | | |
| DC Saturation | frequency | 100 kHz | | | | | | | | | | | |
| | Core Loss (nominal) | 32 mW/cm ³ | | | | | | | | | | | |
| | Core Loss (maximum) | 36 mW/cm ³ | | | | | | | | | | | |
| | $\% \mu_i = \frac{1}{a + b \cdot H^c} + d$ | | | | | | | | | | | | |
| | where H expressed in oersteds, and: a=1.00E-02, b=3.49E-06, c=1.43, d=0.00 | | | | | | | | | | | | |
| Coating/Pkg | H _{DC} | 200 Oe | | | | | | | | | | | |
| | Percent Initial Perm(nom.) | 60.1% | | | | | | | | | | | |
| | Percent Initial Perm(min.) | 53.7% | | | | | | | | | | | |
| | Coating Type: | None, Yellow/Red Stripes | | | | | | | | | | | |
| | Voltage Breakdown (min.) | N/A | | | | | | | | | | | |
| Winding Table | Limit | N/A | | | | | | | | | | | |
| | Package Quantity | 200 Halves/Box | | | | | | | | | | | |
| | 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) | | 2.8 m | 7.2 m | 17.6 m | 43.1 m | 105.8 m | 260.2 m | 641.9 m | 1.6 | 3.9 | 9.6 | 23.5 | |

