



Part Number: EFS-0552821-040

Revision 20160816 - Generated 2016-Aug-16



| | | |
|----------------------------|--|------------------------|
| A | 54.9 ± 0.81 mm | 2.161 ± 0.032 in |
| B | 27.6 ± 0.41 mm | 1.087 ± 0.016 in |
| C | 20.6 ± 0.41 mm | 0.811 ± 0.016 in |
| D | 18.5 mm (min.) | 0.728 in (min.) |
| E | 37.5 mm (min.) | 1.476 in (min.) |
| F | 16.8 ± 0.33 mm | 0.661 ± 0.013 in |
| Mass | (approximate) | 130 grams/half |
| Magnetic Dimensions | A _e - Eff. Mag. Cross Section | 3.50 cm ² |
| | L _e - Eff. Mag. Path Length | 12.3 cm |
| | V _e - Eff. Core Volume | 43.1 cm ³ |
| | WA - Min. Eff. Window Area | 3.77 cm ² |
| | sa - Surface Area | 121 cm ² |
| | mlt - mean length per turn | 11.6 cm |
| Inductance | μ _i (reference) | 40 |
| | A _L value (nominal) | 157 nH/N ² |
| | Test Winding | N=100, #16 AWG |
| | Frequency | 10 kHz |
| | Voltage on Agilent 4284A | 1.6 V |
| | A _L tolerance | ±8% |
| 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+06, b=2.70E+08, c=3.23E+06, d=7.09E-14 | |
| | B _{pk} | 1000 G |
| | frequency | 50 kHz |
| | Core Loss (nominal) | 889 mW/cm ³ |
| Core Loss (maximum) | 1,022 mW/cm ³ | |
| DC Saturation | $\% \mu_i = \frac{1}{a + b \cdot H^c} + d$ | |
| | where H expressed in oersteds, and: a=0.01, b=1.93E-06, c=1.62, d=19.99 | |
| | H _{DC} | 100 Oe |
| | Percent Initial Perm(nom.) | 83.3% |
| Percent Initial Perm(min.) | 79.0% | |
| Coating/Pkg | Coating Type: | None |
| | Voltage Breakdown (min.) | N/A |
| | Limit | N/A |
| | Package Quantity | 96 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 | 20 | 31 | 49 | 75 | 117 | 180 | 279 | 432 | 669 | 1,036 | 1,603 |
| | | Rdc(Ω) | 4.8 m | 11.8 m | 29.6 m | 72.1 m | 178.8 m | 437.6 m | 1.1 | 2.7 | 6.5 | 16.1 | 39.6 |

