



Part Number: **FS-132090-2**
 Revision 20160816 - Generated 2016-Aug-16



| | | | |
|----------------------------|--|---|---------------------------------|
| OD | (nom. - bare core) | 33.02 mm | 1.300 in |
| | (max. - after coating) | 33.83 mm | 1.332 in |
| ID | (nom. - bare core) | 19.94 mm | 0.785 in |
| | (min. - after coating) | 19.30 mm | 0.760 in |
| Ht | (nom. - bare core) | 11.18 mm | 0.440 in |
| | (max. - after coating) | 11.99 mm | 0.472 in |
| Mass | (approximate) | 39 grams | |
| Magnetic Dimensions | A _e - Eff. Mag. Cross Section | 0.698 cm ² | |
| | L _e - Eff. Mag. Path Length | 8.15 cm | |
| | V _e - Eff. Core Volume | 5.69 cm ³ | |
| | WA - Min. Eff. Window Area | 2.93 cm ² | |
| | sa - Surface Area | 40.6 cm ² | |
| | mlt - mean length per turn | 4.82 cm | |
| | Inductance | μ _i (reference) | 90 |
| Core Loss | A _L value (nominal) | 96.9 nH/N ² | |
| | Test Winding | N=70, #22 AWG | |
| | Frequency | 10 kHz | |
| | Voltage on Agilent 4284A | 0.22 V | |
| | AL tolerance | ±8% | |
| DC Saturation | Core Loss(mW/cm ³)= $\frac{f}{\frac{a}{B_{pk}^3} + \frac{b}{B_{pk}^{2.3}} + \frac{c}{B_{pk}^{1.65}}} + d \cdot B_{pk}^2 \cdot f^2$ | | |
| | where B _{pk} expressed in gauss, f expressed in hertz, and: a=1.000E+06, b=5.648E+08, c=7.440E+04, d=6.942E-14 | | |
| | B _{pk} | 1000 G | |
| | frequency | 50 kHz | |
| | Core Loss (nominal) | 869 mW/cm ³ | |
| DC Saturation | $\% \mu_i = \frac{1}{a + b \cdot H^c} + d$ | | |
| | where H expressed in oersteds, and: a=1.000E-02, b=8.566E-06, c=1.584, d=0.000 | | |
| | H _{DC} | 50 Oe | |
| | Percent Initial Perm(nom.) | 70.4% | |
| Coating/Pkg | Percent Initial Perm(min.) | 64.0% | |
| | Coating Type: | Blue Epoxy | |
| | Voltage Breakdown (min.) | 1000 Vrms | |
| | Limit | 0.1 mA, 5 s | |
| Winding Table | Package Quantity | 448 Pcs/Box | |
| | Wire Size | AWG | 8 10 12 14 16 18 20 22 24 26 28 |
| Single Layer | mm | 3.150 2.500 2.000 1.600 1.250 1.000 0.800 0.630 0.500 0.400 0.315 | |
| | Turns | 14 18 22 29 36 46 58 73 91 114 142 | |
| Full Winding | Rdc(Ω) | 1.4 m 2.8 m 5.5 m 11.6 m 22.8 m 46.3 m 92.9 m 186.0 m 368.8 m 734.8 m 1.5 | |
| | Turns | 15 24 37 57 88 136 211 326 504 780 1,208 | |
| Full Winding | Rdc(Ω) | 1.5 m 3.8 m 9.3 m 22.7 m 55.7 m 137.0 m 338.1 m 830.8 m 2.0 5.0 12.4 | |

