



Part Number: **OP-090125-2**
 Revision 20160816 - Generated 2016-Aug-16



| | | | |
|-----------------------------|--|------------------------|----------------------|
| OD | (nom. - bare core) (max. - after coating) | 22.86 mm 23.62 mm | 0.900 in 0.930 in |
| ID | (nom. - bare core) (min. - after coating) | 13.97 mm 13.39 mm | 0.550 in 0.527 in |
| Ht | (nom. - bare core) (max. - after coating) | 7.62 mm 8.38 mm | 0.300 in 0.330 in |
| Mass | (approximate) | 14 grams | |
| Magnetic Dimensions | A _e - Eff. Mag. Cross Section | 0.331 cm ² | |
| | L _e - Eff. Mag. Path Length | 5.67 cm | |
| | V _e - Eff. Core Volume | 1.88 cm ³ | |
| | WA - Min. Eff. Window Area | 1.41 cm ² | |
| | sa - Surface Area | 19.8 cm ² | |
| | mlt - mean length per turn | 3.37 cm | |
| Inductance | μ _i (reference) | 125 | |
| | A _L value (nominal) | 90 nH/N ² | |
| | Test Winding | N=80, #26 AWG | |
| | Frequency | 10 kHz | |
| | Voltage on Agilent 4284A | 0.12 V | |
| AL 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=3.954E+09, b=2.598E+09, c=3.654E+06, d=5.000E-14 | | |
| | B _{pk} | 1000 G | |
| | frequency | 50 kHz | |
| | Core Loss (nominal) | 259 mW/cm ³ | |
| Core Loss (maximum) | 298 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=3.545E-06, c=1.863, d=0.000 | | |
| | H _{DC} | 40 Oe | |
| | Percent Initial Perm.(nom.) | 74.5% | |
| Percent Initial Perm.(min.) | 67.5% | | |
| Coating/Pkg | Coating Type: | Blue Epoxy | |
| | Voltage Breakdown (min.) | 1000 Vrms | |
| | Limit | 0.1 mA, 5 s | |
| | Package Quantity | 1,089 Pcs/Box | |

| | | | | | | | | | | | | | |
|----------------------|---------------------|--------|-------|-------|--------|--------|---------|---------|---------|---------|---------|---------|-------|
| Winding Table | Wire Size | AWG | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 | 26 | 28 | 30 |
| | | mm | 2.500 | 2.000 | 1.600 | 1.250 | 1.000 | 0.800 | 0.630 | 0.500 | 0.400 | 0.315 | 0.250 |
| | Single Layer | Turns | 11 | 15 | 19 | 24 | 31 | 39 | 50 | 62 | 78 | 98 | 123 |
| | | Rdc(Ω) | 1.2 m | 2.6 m | 5.3 m | 10.6 m | 21.8 m | 43.7 m | 89.1 m | 175.8 m | 351.6 m | 702.7 m | 1.4 |
| Full Winding | Turns | 11 | 18 | 27 | 42 | 65 | 101 | 157 | 243 | 376 | 581 | 900 | |
| | Rdc(Ω) | 1.2 m | 3.2 m | 7.5 m | 18.6 m | 45.8 m | 113.2 m | 279.8 m | 688.8 m | 1.7 | 4.2 | 10.3 | |

