



Part Number: **HF-301125-2**
 Revision 20160816 - Generated 2016-Aug-16



| | | | |
|-----------------------------|--|------------------------|----------|
| OD | (nom. - bare core) | 77.80 mm | 3.063 in |
| | (max. - after coating) | 78.94 mm | 3.108 in |
| ID | (nom. - bare core) | 49.23 mm | 1.938 in |
| | (min. - after coating) | 47.96 mm | 1.888 in |
| Ht | (nom. - bare core) | 15.88 mm | 0.625 in |
| | (max. - after coating) | 17.15 mm | 0.675 in |
| Mass | (approximate) | 330 grams | |
| Magnetic Dimensions | A _e - Eff. Mag. Cross Section | 2.22 cm ² | |
| | L _e - Eff. Mag. Path Length | 19.612 cm | |
| | V _e - Eff. Core Volume | 43.5 cm ³ | |
| | WA - Min. Eff. Window Area | 18.1 cm ² | |
| | sa - Surface Area | 193 cm ² | |
| | mlt - mean length per turn | 8.93 cm | |
| Inductance | μ _i (reference) | 125 | |
| | A _L value (nominal) | 178 nH/N ² | |
| | Test Winding | N=120, #18 AWG | |
| | Frequency | 10 kHz | |
| | Voltage on Agilent 4284A | 1.2 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=3.540E+10, b=6.826E+08, c=2.688E+06, d=6.077E-14 | | |
| | B _{pk} | 1000 G | |
| | frequency | 50 kHz | |
| | Core Loss (nominal) | 482 mW/cm ³ | |
| Core Loss (maximum) | 554 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=7.955E-07, c=2.174, d=0.000 | | |
| | H _{DC} | 40 Oe | |
| | Percent Initial Perm.(nom.) | 80.5% | |
| Percent Initial Perm.(min.) | 73.6% | | |
| Coating/Pkg | Coating Type: | Blue Epoxy | |
| | Voltage Breakdown (min.) | 1000 Vrms | |
| | Limit | 0.1 mA, 5 s | |
| | Package Quantity | 36 Pcs/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 |
| | Single Layer | Turns | 38 | 48 | 60 | 75 | 95 | 118 | 148 | 185 | 230 | 287 | 358 |
| | | Rdc(Ω) | 7.0 m | 14.0 m | 27.9 m | 55.4 m | 111.5 m | 220.3 m | 439.5 m | 873.8 m | 1.7 | 3.4 | 6.8 |
| Full Winding | Turns | 95 | 146 | 227 | 351 | 543 | 840 | 1,300 | 2,012 | 3,114 | 4,820 | 7,459 | |
| | Rdc(Ω) | 17.4 m | 42.6 m | 105.4 m | 259.1 m | 637.6 m | 1.6 | 3.9 | 9.5 | 23.4 | 57.6 | 141.7 | |

