



Part Number: **HF-300014-2**
 Revision 20160816 - Generated 2016-Aug-16



| | | | |
|----------------------------|---|------------------------|----------------------|
| OD | (nom. - bare core) (max. - after coating) | 77.80 mm 78.94 mm | 3.063 in 3.108 in |
| ID | (nom. - bare core) (min. - after coating) | 49.23 mm 47.96 mm | 1.938 in 1.888 in |
| Ht | (nom. - bare core) (max. - after coating) | 12.70 mm 13.97 mm | 0.500 in 0.550 in |
| Mass | (approximate) | 220 grams | |
| Magnetic Dimensions | A _e - Eff. Mag. Cross Section | 1.77 cm ² | |
| | L _e - Eff. Mag. Path Length | 19.612 cm | |
| | V _e - Eff. Core Volume | 34.8 cm ³ | |
| | WA - Min. Eff. Window Area | 18.1 cm ² | |
| | sa - Surface Area | 184 cm ² | |
| | mlt - mean length per turn | 8.29 cm | |
| Inductance | μ _i (reference) | 14 | |
| | A _L value (nominal) | 16 nH/N ² | |
| | Test Winding | N=120, #18 AWG | |
| | Frequency | 10 kHz | |
| | Voltage on Agilent 4284A | 0.94 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=2.058E+09, b=3.239E+08, c=3.003E+06, d=1.233E-13 | | |
| | B _{pk} | 300 G | |
| | frequency | 100 kHz | |
| | Core Loss (nominal) | 214 mW/cm ³ | |
| | Core Loss (maximum) | 246 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=8.808E-07, c=1.438, d=0.000 | | |
| | H _{DC} | 200 Oe | |
| | Percent Initial Perm.(nom.) | 84.8% | |
| | Percent Initial Perm.(min.) | 81.1% | |
| Coating/Pkg | Coating Type: | Blue Epoxy | |
| | Voltage Breakdown (min.) | 1000 Vrms | |
| | Limit | 0.1 mA, 5 s | |
| | Package Quantity | 45 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) | 6.5 m | 13.0 m | 25.9 m | 51.4 m | 103.6 m | 204.6 m | 408.2 m | 811.5 m | 1.6 | 3.2 | 6.3 |
| Full Winding | Turns | 95 | 146 | 227 | 351 | 543 | 840 | 1,300 | 2,012 | 3,114 | 4,820 | 7,459 | |
| | Rdc(Ω) | 16.2 m | 39.6 m | 97.9 m | 240.7 m | 592.1 m | 1.5 | 3.6 | 8.8 | 21.7 | 53.5 | 131.6 | |

