



Part Number: MP-130147-2
Revision 20160816 - Generated 2016-Aug-16



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|-----------------------------|--|------------------------|----------|
| 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) | 10.67 mm | 0.420 in |
| | (max. - after coating) | 11.61 mm | 0.457 in |
| Mass | (approximate) | 43 grams | |
| Magnetic Dimensions | A _e - Eff. Mag. Cross Section | 0.672 cm ² | |
| | L _e - Eff. Mag. Path Length | 8.15 cm | |
| | V _e - Eff. Core Volume | 5.48 cm ³ | |
| | WA - Min. Eff. Window Area | 2.93 cm ² | |
| | sa - Surface Area | 40.1 cm ² | |
| | mlt - mean length per turn | 4.74 cm | |
| Inductance | μ _i (reference) | 147 | |
| | A _L value (nominal) | 150 nH/N ² | |
| | Test Winding | N=70, #22 AWG | |
| | Frequency | 10 kHz | |
| | Voltage on Agilent 4284A | 0.21 V | |
| | AL tolerance | ±8% | |
| Core Loss | 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=3.167E+10, b=1.206E+09, c=9.656E+06, d=5.636E-14 | | |
| | B _{pk} | 1000 G | |
| | frequency | 50 kHz | |
| | Core Loss (nominal) | 312 mW/cm ³ | |
| Core Loss (maximum) | 359 mW/cm ³ | | |
| DC Saturation | %μ _i = $\frac{1}{a + b \cdot H^c} + d$ | | |
| | where H expressed in oersteds, and: a=1.000E-02, b=1.089E-05, c=1.874, d=0.000 | | |
| | H _{DC} | 40 Oe | |
| | Percent Initial Perm.(nom.) | 47.8% | |
| Percent Initial Perm.(min.) | 39.4% | | |
| Coating/Pkg | Coating Type: | Blue Epoxy | |
| | Voltage Breakdown (min.) | 1000 Vrms | |
| | Limit | 0.1 mA, 5 s | |
| | Package Quantity | 384 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 | 14 | 18 | 22 | 29 | 36 | 46 | 58 | 73 | 91 | 114 | 142 |
| | | Rdc(Ω) | 1.4 m | 2.8 m | 5.4 m | 11.4 m | 22.4 m | 45.6 m | 91.5 m | 183.1 m | 363.0 m | 723.2 m | 1.4 |
| Full Winding | Turns | 15 | 24 | 37 | 57 | 88 | 136 | 211 | 326 | 504 | 780 | 1,208 | |
| | Rdc(Ω) | 1.5 m | 3.7 m | 9.1 m | 22.3 m | 54.9 m | 134.9 m | 332.8 m | 817.6 m | 2.0 | 4.9 | 12.2 | |

