



Part Number: MP-135125-2
Revision 20160816 - Generated 2016-Aug-16



| | | | |
|-----------------------------|--|------------------------|----------------------|
| OD | (nom. - bare core) (max. - after coating) | 34.29 mm 35.10 mm | 1.350 in 1.382 in |
| ID | (nom. - bare core) (min. - after coating) | 23.37 mm 22.56 mm | 0.920 in 0.888 in |
| Ht | (nom. - bare core) (max. - after coating) | 8.89 mm 9.83 mm | 0.350 in 0.387 in |
| Mass | (approximate) | 31 grams | |
| Magnetic Dimensions | A _e - Eff. Mag. Cross Section | 0.454 cm ² | |
| | L _e - Eff. Mag. Path Length | 8.95 cm | |
| | V _e - Eff. Core Volume | 4.06 cm ³ | |
| | WA - Min. Eff. Window Area | 4.00 cm ² | |
| | sa - Surface Area | 41.4 cm ² | |
| | mlt - mean length per turn | 4.35 cm | |
| Inductance | μ _i (reference) | 125 | |
| | A _L value (nominal) | 79 nH/N ² | |
| | Test Winding | N=90, #22 AWG | |
| | Frequency | 10 kHz | |
| | Voltage on Agilent 4284A | 0.18 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=2.193E+10, b=1.308E+09, c=9.301E+06, d=3.087E-14 | | |
| | B _{pk} | 1000 G | |
| | frequency | 50 kHz | |
| | Core Loss (nominal) | 249 mW/cm ³ | |
| Core Loss (maximum) | 286 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=7.875E-06, c=1.874, d=0.000 | | |
| | H _{DC} | 40 Oe | |
| | Percent Initial Perm.(nom.) | 55.8% | |
| Percent Initial Perm.(min.) | 47.3% | | |
| Coating/Pkg | Coating Type: | Blue Epoxy | |
| | Voltage Breakdown (min.) | 1000 Vrms | |
| | Limit | 0.1 mA, 5 s | |
| | Package Quantity | 441 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 | 16 | 21 | 27 | 34 | 43 | 54 | 68 | 85 | 107 | 134 | 167 |
| | | Rdc(Ω) | 1.4 m | 3.0 m | 6.1 m | 12.2 m | 24.6 m | 49.1 m | 98.4 m | 195.6 m | 391.5 m | 779.8 m | 1.5 |
| Full Winding | Turns | 21 | 32 | 50 | 78 | 120 | 186 | 288 | 445 | 689 | 1,066 | 1,651 | |
| | Rdc(Ω) | 1.9 m | 4.5 m | 11.3 m | 28.1 m | 68.6 m | 169.2 m | 416.6 m | 1.0 | 2.5 | 6.2 | 15.3 | |

