



Part Number: MS-132090-2
Revision 20160816 - Generated 2016-Aug-16



| | | | |
|-----------------------------|--|------------------------|----------------------|
| OD | (nom. - bare core) (max. - after coating) | 33.02 mm 33.83 mm | 1.300 in 1.332 in |
| ID | (nom. - bare core) (min. - after coating) | 19.94 mm 19.30 mm | 0.785 in 0.760 in |
| Ht | (nom. - bare core) (max. - after coating) | 11.18 mm 11.99 mm | 0.440 in 0.472 in |
| Mass | (approximate) | 34 grams | |
| Magnetic Dimensions | A _e - Eff. Mag. Cross Section | 0.698 cm ² | |
| | L _e - Eff. Mag. Path Length | 8.15 cm | |
| | V _e - Eff. Core Volume | 5.69 cm ³ | |
| | WA - Min. Eff. Window Area | 2.93 cm ² | |
| | sa - Surface Area | 40.6 cm ² | |
| | mlt - mean length per turn | 4.82 cm | |
| Inductance | μ _i (reference) | 90 | |
| | A _L value (nominal) | 96.9 nH/N ² | |
| | Test Winding | N=70, #22 AWG | |
| | Frequency | 10 kHz | |
| | Voltage on Agilent 4284A | 0.22 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=7.890E+09, b=7.111E+08, c=8.980E+06, d=2.846E-14 | | |
| | B _{pk} | 1000 G | |
| | frequency | 50 kHz | |
| | Core Loss (nominal) | 323 mW/cm ³ | |
| Core Loss (maximum) | 372 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=3.994E-06, c=1.883, d=0.000 | | |
| | H _{DC} | 50 Oe | |
| | Percent Initial Perm.(nom.) | 61.3% | |
| Percent Initial Perm.(min.) | 52.9% | | |
| Coating/Pkg | Coating Type: | Blue Epoxy | |
| | Voltage Breakdown (min.) | 1000 Vrms | |
| | Limit | 0.1 mA, 5 s | |
| | Package Quantity | 448 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 | 5.5 m | 11.6 m | 22.8 m | 46.3 m | 92.9 m | 186.0 m | 368.8 m | 734.8 m | 1.5 |
| Full Winding | Turns | 15 | 24 | 37 | 57 | 88 | 136 | 211 | 326 | 504 | 780 | 1,208 | |
| | Rdc(Ω) | 1.5 m | 3.8 m | 9.3 m | 22.7 m | 55.7 m | 137.0 m | 338.1 m | 830.8 m | 2.0 | 5.0 | 12.4 | |

