



Part Number: MS-044160-2
Revision 20160816 - Generated 2016-Aug-16



| | | | |
|-----------------------------|--|------------------------|----------------------|
| OD | (nom. - bare core) (max. - after coating) | 11.18 mm 11.89 mm | 0.440 in 0.468 in |
| ID | (nom. - bare core) (min. - after coating) | 6.35 mm 5.89 mm | 0.250 in 0.232 in |
| Ht | (nom. - bare core) (max. - after coating) | 3.96 mm 4.72 mm | 0.156 in 0.186 in |
| Mass | (approximate) | 1.4 grams | |
| Magnetic Dimensions | A _e - Eff. Mag. Cross Section | 0.0906 cm ² | |
| | L _e - Eff. Mag. Path Length | 2.69 cm | |
| | V _e - Eff. Core Volume | 0.244 cm ³ | |
| | WA - Min. Eff. Window Area | 0.273 cm ² | |
| | sa - Surface Area | 5.10 cm ² | |
| | mlt - mean length per turn | 1.84 cm | |
| Inductance | μ _i (reference) | 160 | |
| | A _L value (nominal) | 68 nH/N ² | |
| | Test Winding | N=60, #30 AWG | |
| | Frequency | 10 kHz | |
| | Voltage on Agilent 4284A | 0.024 V | |
| | AL tolerance | ±12% | |
| 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=3.679E+10, b=1.150E+09, c=1.004E+07, d=2.851E-14 | | |
| | B _{pk} | 1000 G | |
| | frequency | 50 kHz | |
| | Core Loss (nominal) | 241 mW/cm ³ | |
| Core Loss (maximum) | 277 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=4.439E-05, c=1.627, d=0.000 | | |
| | H _{DC} | 40 Oe | |
| | Percent Initial Perm.(nom.) | 35.8% | |
| Percent Initial Perm.(min.) | 29.3% | | |
| Coating/Pkg | Coating Type: | Blue Epoxy | |
| | Voltage Breakdown (min.) | 1000 Vrms | |
| | Limit | 0.1 mA, 5 s | |
| | Package Quantity | 9,000 Pcs/Box | |

| | | | | | | | | | | | | | |
|----------------------|---------------------|--------|--------|--------|--------|---------|---------|---------|---------|---------|-------|-------|-------|
| Winding Table | Wire Size | AWG | 18 | 20 | 22 | 24 | 26 | 28 | 30 | 32 | 34 | 36 | 38 |
| | | mm | 1.000 | 0.800 | 0.630 | 0.500 | 0.400 | 0.315 | 0.250 | 0.200 | 0.160 | 0.125 | 0.100 |
| | Single Layer | Turns | 12 | 16 | 20 | 26 | 33 | 42 | 52 | 66 | 83 | 103 | 129 |
| | | Rdc(Ω) | 4.6 m | 9.8 m | 19.5 m | 40.2 m | 81.2 m | 164.4 m | 323.6 m | 653.3 m | 1.3 | 2.6 | 5.1 |
| Full Winding | Turns | 13 | 20 | 30 | 47 | 73 | 113 | 174 | 270 | 417 | 646 | 999 | |
| | Rdc(Ω) | 5.0 m | 12.2 m | 29.2 m | 72.7 m | 179.6 m | 442.2 m | 1.1 | 2.7 | 6.6 | 16.2 | 39.8 | |

