



Part Number: MS-068125-2H127
Revision 20160816 - Generated 2016-Aug-16



| | | | |
|-----------------------------|--|------------------------|----------------------|
| OD | (nom. - bare core) (max. - after coating) | 17.27 mm 18.03 mm | 0.680 in 0.710 in |
| ID | (nom. - bare core) (min. - after coating) | 9.65 mm 9.02 mm | 0.380 in 0.355 in |
| Ht | (nom. - bare core) (max. - after coating) | 12.70 mm 13.46 mm | 0.500 in 0.530 in |
| Mass | (approximate) | 11 grams | |
| Magnetic Dimensions | A _e - Eff. Mag. Cross Section | 0.464 cm ² | |
| | L _e - Eff. Mag. Path Length | 4.14 cm | |
| | V _e - Eff. Core Volume | 1.92 cm ³ | |
| | WA - Min. Eff. Window Area | 0.639 cm ² | |
| | sa - Surface Area | 15.8 cm ² | |
| | mlt - mean length per turn | 4.04 cm | |
| Inductance | μ _i (reference) | 125 | |
| | A _L value (nominal) | 178 nH/N ² | |
| | Test Winding | N=70, #28 AWG | |
| | Frequency | 10 kHz | |
| | Voltage on Agilent 4284A | 0.14 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=1.394E+10, b=1.034E+09, c=1.244E+07, d=4.007E-14 | | |
| | B _{pk} | 1000 G | |
| | frequency | 50 kHz | |
| | Core Loss (nominal) | 276 mW/cm ³ | |
| Core Loss (maximum) | 318 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=7.884E-06, c=1.883, d=0.000 | | |
| | H _{DC} | 40 Oe | |
| | Percent Initial Perm (nom.) | 55.0% | |
| Percent Initial Perm (min.) | 46.4% | | |
| Coating/Pkg | Coating Type: | Blue Epoxy | |
| | Voltage Breakdown (min.) | 1000 Vrms | |
| | Limit | 0.1 mA, 5 s | |
| | Package Quantity | 900 Pcs/Box | |

| | | | | | | | | | | | | | |
|----------------------|---------------------|--------|--------|--------|--------|---------|---------|---------|---------|---------|-------|-------|-------|
| Winding Table | Wire Size | AWG | 14 | 16 | 18 | 20 | 22 | 24 | 26 | 28 | 30 | 32 | 34 |
| | | mm | 1.600 | 1.250 | 1.000 | 0.800 | 0.630 | 0.500 | 0.400 | 0.315 | 0.250 | 0.200 | 0.160 |
| | Single Layer | Turns | 12 | 15 | 20 | 26 | 32 | 41 | 52 | 65 | 82 | 102 | 128 |
| | | Rdc(Ω) | 4.0 m | 8.0 m | 16.9 m | 35.0 m | 68.5 m | 139.5 m | 281.4 m | 559.5 m | 1.1 | 2.2 | 4.4 |
| Full Winding | Turns | 12 | 19 | 30 | 46 | 71 | 110 | 170 | 264 | 408 | 632 | 978 | |
| | Rdc(Ω) | 4.0 m | 10.1 m | 25.4 m | 61.9 m | 151.9 m | 374.3 m | 920.1 m | 2.3 | 5.6 | 13.8 | 33.9 | |

