



Part Number: **T12-10**

Revision 20190524 - Generated 2019-May-30



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|----------------------------|--|--|--|
| OD | (nom. - bare core) (max. - after coating) | 3.18 mm 3.30 mm | 0.125 in 0.130 in |
| ID | (nom. - bare core) (min. - after coating) | 1.57 mm 1.45 mm | 0.062 in 0.057 in |
| Ht | (nom. - bare core) (max. - after coating) | 1.27 mm 1.40 mm | 0.050 in 0.055 in |
| Mass | (approximate) | 0.04 grams | |
| Magnetic Dimensions | A _e - Eff. Mag. Cross Section | 0.0100 cm ² | |
| | L _e - Eff. Mag. Path Length | 0.750 cm | |
| | V _e - Eff. Core Volume | 0.00770 | |
| | WA - Min. Eff. Window Area | 0.0165 cm ² | |
| | sa - Surface Area | 0.395 cm ² | |
| Inductance | μ _i (reference) | 6 | |
| | A _L value (nominal) | 1.2 nH/N ² | |
| | Test Winding | N=25, #36 AWG | |
| | Frequency | 1 MHz | |
| | Voltage on Agilent 4284A | 0.11 V | |
| Core Loss & Q | A _L tolerance | ±5% | |
| | Core Loss(mW/cm ³)= | $\frac{f}{\frac{a}{Bpk^3} + \frac{b}{Bpk^{2.3}} + \frac{c}{Bpk^{1.65}}} + d \cdot Bpk^2 \cdot f^2$ | |
| | where B _{pk} expressed in gauss, f expressed in hertz, and: | a=4.00E+09, b=3.00E+08, c=2.70E+06, d=8.00E-16 | |
| | Q test winding | N=25, #36 AWG | |
| | Q frequency | 35 MHz | |
| DC Saturation | Q min on HP4342A | 93 | |
| | %μ _i = | $\frac{1}{a + b \cdot H^c} + d$ | |
| | where H expressed in oersteds, and: | a=1.00E-02, b=5.54E-09, c=1.69, d=0.00 | |
| | H _{DC} | 200 Oe | |
| | Percent Initial Perm(nom.) | 99.6% | |
| Coating/Pkg | Percent Initial Perm(min.) | 99.4% | |
| | Coating Type: | Parylene C | |
| | Voltage Breakdown (min.) | 500 Vrms, 60Hz | |
| | Limit | 3 mA, 5 s | |
| Winding Table | Package Quantity | 250,000 Pcs/Box | |
| | Wire Size | AWG | 30 32 34 36 38 40 42 44 #N/A #N/A #N/A |
| Single Layer | mm | 0.250 0.200 0.160 0.125 0.100 0.080 0.063 0.050 #N/A #N/A #N/A | |
| | Turns | 11 14 18 23 30 38 47 60 #N/A #N/A #N/A | |
| Full Winding | Rdc(Ω) | 20.0 m 40.5 m 82.8 m 168.3 m 349.0 m 703.1 m 1.4 2.8 #N/A #N/A #N/A | |
| | Turns | 11 16 25 39 60 93 145 224 #N/A #N/A #N/A | |
| Full Winding | Rdc(Ω) | 20.0 m 46.3 m 115.0 m 285.3 m 698.0 m 1.7 4.3 10.5 #N/A #N/A #N/A | |

