



**Part Number: HF-014060-8**

Revision 20190529 - Generated 2019-May-29



(If coated, Max./Min. includes coating)

|                            |  |                        |                      |
|----------------------------|--|------------------------|----------------------|
| <b>OD</b>                  | (nom. - bare core)<br>(max.)   | 3.56 mm<br>3.76 mm     | 0.140 in<br>0.148 in |
| <b>ID</b>                  | (nom. - bare core)<br>(min.)   | 1.78 mm<br>1.52 mm     | 0.070 in<br>0.060 in |
| <b>HT</b>                  | (nom. - bare core)<br>(max.)   | 1.52 mm<br>1.73 mm     | 0.060 in<br>0.068 in |
| <b>Mass</b>                | (approximate)  | 0.07 grams             |                      |
| <b>Magnetic Dimensions</b> | A <sub>e</sub> - Eff. Mag. Cross Section   | 0.0137 cm <sup>2</sup> |                      |
|                            | L <sub>e</sub> - Eff. Mag. Path Length   | 0.817 cm               |                      |
|                            | V <sub>e</sub> - Eff. Core Volume  | 0.0107 cm <sup>3</sup> |                      |
|                            | WA - Min. Eff. Window Area   | 0.0181 cm <sup>2</sup> |                      |
|                            | sa - Surface Area  | 0.523 cm <sup>2</sup>  |                      |
| <b>Inductance</b>          | μ <sub>i</sub> (reference)   | 60                     |                      |
|                            | A <sub>L</sub> value (nominal)   | 13 nH/N <sup>2</sup>   |                      |
| <b>Core Loss</b>           | Test Winding   | N=30, #36 AWG          |                      |
|                            | Frequency  | 10 kHz                 |                      |
|                            | Voltage on Agilent 4284A   | 0.002 V                |                      |
|                            | AL tolerance   | ±8%                    |                      |
|                            | Core Loss(mW/cm <sup>3</sup> )= $\frac{f}{\frac{a}{B_{pk}^3} + \frac{b}{B_{pk}^{2.3}} + \frac{c}{B_{pk}^{1.65}}} + d \cdot B_{pk}^2 \cdot f^2$ |                        |                      |
| <b>DC Saturation</b>       | where B <sub>pk</sub> expressed in gauss, f expressed in hertz, and:<br>a=8.579E+09, b=7.879E+08, c=1.650E+06, d=1.019E-13                     |                        |                      |
|                            | B <sub>pk</sub>  | 1000 G                 |                      |
|                            | frequency  | 50 kHz                 |                      |
|                            | Core Loss (nominal)  | 651 mW/cm <sup>3</sup> |                      |
|                            | Core Loss (maximum)  | 748 mW/cm <sup>3</sup> |                      |
| <b>DC Saturation</b>       | %μ <sub>i</sub> = $\frac{1}{a + b \cdot H^c} + d$  |                        |                      |
|                            | where H expressed in oersteds, and:<br>a=1.000E-02, b=7.648E-07, c=1.888, d=0.000  |                        |                      |
|                            | H <sub>DC</sub>  | 150 Oe                 |                      |
|                            | Percent Initial Perm(nom.)   | 50.4%                  |                      |
| <b>Coating/Pkg</b>         | Percent Initial Perm(min.)   | 41.9%                  |                      |
|                            | Coating Type:  | Parylene N             |                      |
|                            | Voltage Breakdown (min.)   | 500 Vrms               |                      |
|                            | Limit  | 0.1 mA, 5 s            |                      |
| <b>Winding Table</b>       | Package Quantity   | 36,000 Pcs/Box         |                      |
|                            | Wire Size  |                        |                      |

|                      |                     |        |        |         |         |         |         |         |       |       |   |   |   |
|----------------------|---------------------|--------|--------|---------|---------|---------|---------|---------|-------|-------|---|---|---|
| <b>Winding Table</b> | <b>Wire Size</b>    | AWG    | 30     | 32      | 34      | 36      | 38      | 40      | 42    | 44    | - | - | - |
|                      |                     | mm     | 0.250  | 0.200   | 0.160   | 0.125   | 0.100   | 0.080   | 0.063 | 0.050 | - | - | - |
|                      | <b>Single Layer</b> | Turns  | 11     | 15      | 19      | 25      | 31      | 40      | 50    | 63    | - | - | - |
|                      |                     | Rdc(Ω) | 24.1 m | 52.2 m  | 105.1 m | 219.9 m | 433.7 m | 890.0 m | 1.8   | 3.5   | - | - | - |
| <b>Full Winding</b>  | Turns               | 12     | 18     | 28      | 43      | 67      | 103     | 159     | 247   | -     | - | - |   |
|                      | Rdc(Ω)              | 26.2 m | 62.6 m | 154.9 m | 378.3 m | 937.3 m | 2.3     | 5.6     | 13.9  | -     | - | - |   |

