



**Part Number:** **OP-107060-2**  
 Revision 20160816 - Generated 2016-Aug-16



|                             |  |                        |                      |
|-----------------------------|--|------------------------|----------------------|
| <b>OD</b>                   | (nom. - bare core)<br>(max. - after coating)   | 26.92 mm<br>27.69 mm   | 1.060 in<br>1.090 in |
| <b>ID</b>                   | (nom. - bare core)<br>(min. - after coating)   | 14.73 mm<br>14.10 mm   | 0.580 in<br>0.555 in |
| <b>Ht</b>                   | (nom. - bare core)<br>(max. - after coating)   | 8.64 mm<br>9.45 mm     | 0.340 in<br>0.372 in |
| <b>Mass</b>                 | (approximate)  | 21 grams               |                      |
| <b>Magnetic Dimensions</b>  | A <sub>e</sub> - Eff. Mag. Cross Section   | 0.497 cm <sup>2</sup>  |                      |
|                             | L <sub>e</sub> - Eff. Mag. Path Length   | 6.35 cm                |                      |
|                             | V <sub>e</sub> - Eff. Core Volume  | 3.16 cm <sup>3</sup>   |                      |
|                             | WA - Min. Eff. Window Area   | 1.56 cm <sup>2</sup>   |                      |
|                             | sa - Surface Area  | 26.3 cm <sup>2</sup>   |                      |
|                             | mlt - mean length per turn   | 3.95 cm                |                      |
| <b>Inductance</b>           | μ <sub>i</sub> (reference)   | 60                     |                      |
|                             | A <sub>L</sub> value (nominal)   | 59 nH/N <sup>2</sup>   |                      |
|                             | Test Winding   | N=80, #26 AWG          |                      |
|                             | Frequency  | 10 kHz                 |                      |
|                             | Voltage on Agilent 4284A   | 0.18 V                 |                      |
|                             | AL tolerance   | ±8%                    |                      |
| <b>Core Loss</b>            | $\text{Core Loss (mW/cm}^3\text{)} = \frac{f}{\frac{a}{B_{pk}^3} + \frac{b}{B_{pk}^{2.3}} + \frac{c}{B_{pk}^{1.65}}} + d \cdot B_{pk}^2 \cdot f^2$ |                        |                      |
|                             | where B <sub>pk</sub> expressed in gauss, f expressed in hertz, and:<br>a=1.000E+06, b=1.329E+09, c=3.531E+06, d=5.000E-14                         |                        |                      |
|                             | B <sub>pk</sub>  | 1000 G                 |                      |
|                             | frequency  | 50 kHz                 |                      |
|                             | Core Loss (nominal)  | 367 mW/cm <sup>3</sup> |                      |
| Core Loss (maximum)         | 422 mW/cm <sup>3</sup>   |                        |                      |
| <b>DC Saturation</b>        | $\% \mu_i = \frac{1}{a + b \cdot H^c} + d$   |                        |                      |
|                             | where H expressed in oersteds, and:<br>a=1.000E-02, b=1.740E-06, c=1.748, d=0.000  |                        |                      |
|                             | H <sub>DC</sub>  | 100 Oe                 |                      |
|                             | Percent Initial Perm.(nom.)  | 64.7%                  |                      |
| Percent Initial Perm.(min.) | 57.1%  |                        |                      |
| <b>Coating/Pkg</b>          | Coating Type:  | Blue Epoxy             |                      |
|                             | Voltage Breakdown (min.)   | 1000 Vrms              |                      |
|                             | Limit  | 0.1 mA, 5 s            |                      |
|                             | Package Quantity   | 600 Pcs/Box            |                      |

|                      |                     |        |       |       |        |        |         |         |         |         |         |         |       |
|----------------------|---------------------|--------|-------|-------|--------|--------|---------|---------|---------|---------|---------|---------|-------|
| <b>Winding Table</b> | <b>Wire Size</b>    | AWG    | 10    | 12    | 14     | 16     | 18      | 20      | 22      | 24      | 26      | 28      | 30    |
|                      |                     | mm     | 2.500 | 2.000 | 1.600  | 1.250  | 1.000   | 0.800   | 0.630   | 0.500   | 0.400   | 0.315   | 0.250 |
|                      | <b>Single Layer</b> | Turns  | 12    | 16    | 20     | 26     | 33      | 41      | 52      | 66      | 82      | 103     | 129   |
|                      |                     | Rdc(Ω) | 1.6 m | 3.3 m | 6.5 m  | 13.5 m | 27.3 m  | 53.9 m  | 108.8 m | 219.6 m | 433.9 m | 866.9 m | 1.7   |
| <b>Full Winding</b>  | Turns               | 13     | 20    | 30    | 47     | 73     | 112     | 174     | 269     | 417     | 645     | 998     |       |
|                      | Rdc(Ω)              | 1.7 m  | 4.1 m | 9.8 m | 24.4 m | 60.4 m | 147.3 m | 364.0 m | 895.1 m | 2.2     | 5.4     | 13.4    |       |

