



**Part Number: MP-106060-2**  
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)   | 11.18 mm<br>11.99 mm   | 0.440 in<br>0.472 in |
| <b>Mass</b>                 | (approximate)  | 31 grams               |                      |
| <b>Magnetic Dimensions</b>  | A <sub>e</sub> - Eff. Mag. Cross Section   | 0.654 cm <sup>2</sup>  |                      |
|                             | L <sub>e</sub> - Eff. Mag. Path Length   | 6.35 cm                |                      |
|                             | V <sub>e</sub> - Eff. Core Volume  | 4.15 cm <sup>3</sup>   |                      |
|                             | WA - Min. Eff. Window Area   | 1.56 cm <sup>2</sup>   |                      |
|                             | sa - Surface Area  | 28.8 cm <sup>2</sup>   |                      |
|                             | mlt - mean length per turn   | 4.46 cm                |                      |
| <b>Inductance</b>           | μ <sub>i</sub> (reference)   | 60                     |                      |
|                             | A <sub>L</sub> value (nominal)   | 75 nH/N <sup>2</sup>   |                      |
|                             | Test Winding   | N=80, #26 AWG          |                      |
|                             | Frequency  | 10 kHz                 |                      |
|                             | Voltage on Agilent 4284A   | 0.23 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=9.919E+09, b=9.488E+08, c=4.486E+06, d=3.238E-14                         |                        |                      |
|                             | B <sub>pk</sub>  | 1000 G                 |                      |
|                             | frequency  | 50 kHz                 |                      |
|                             | Core Loss (nominal)  | 359 mW/cm <sup>3</sup> |                      |
| Core Loss (maximum)         | 413 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=1.212E-06, c=1.961, d=0.000  |                        |                      |
|                             | H <sub>DC</sub>  | 100 Oe                 |                      |
|                             | Percent Initial Perm.(nom.)  | 49.6%                  |                      |
| Percent Initial Perm.(min.) | 40.8%  |                        |                      |
| <b>Coating/Pkg</b>          | Coating Type:  | Blue Epoxy             |                      |
|                             | Voltage Breakdown (min.)   | 1000 Vrms              |                      |
|                             | Limit  | 0.1 mA, 5 s            |                      |
|                             | Package Quantity   | 500 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) | 1.8 m | 3.7 m  | 7.4 m  | 15.3 m | 30.8 m  | 60.9 m  | 122.8 m | 247.8 m | 489.7 m | 978.2 m | 1.9   |
| <b>Full Winding</b>  | Turns               | 13     | 20    | 30     | 47     | 73     | 112     | 174     | 269     | 417     | 645     | 998     |       |
|                      | Rdc(Ω)              | 1.9 m  | 4.6 m | 11.1 m | 27.6 m | 68.1 m | 166.3 m | 410.8 m | 1.0     | 2.5     | 6.1     | 15.1    |       |

