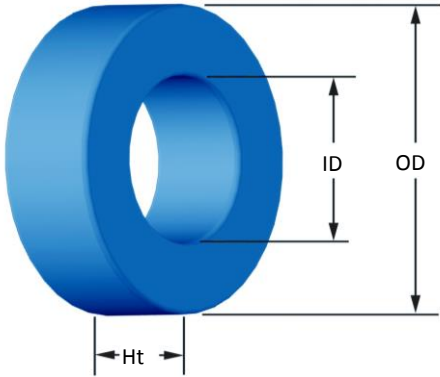


**Part Number: MS-184060-2**



|                            |   |  |                      |
|----------------------------|---|--|----------------------|
| <b>OD</b>                  | (nom. - bare core)<br>(max. - after coating)  | 46.74 mm<br>47.63 mm   | 1.840 in<br>1.875 in |
| <b>ID</b>                  | (nom. - bare core)<br>(min. - after coating)  | 24.13 mm<br>23.32 mm   | 0.950 in<br>0.918 in |
| <b>Ht</b>                  | (nom. - bare core)<br>(max. - after coating)  | 18.03 mm<br>18.92 mm   | 0.710 in<br>0.745 in |
| <b>Mass</b>                | (approximate)   | 120 grams  |                      |
| <b>Magnetic Dimensions</b> | $A_e$ - Eff. Mag. Cross Section<br>$L_e$ - Eff. Mag. Path Length<br>$V_e$ - Eff. Core Volume<br>WA - Min. Eff. Window Area<br>sa - Surface Area<br>mlt - mean length per turn   | 1.99 cm <sup>2</sup><br>10.743 cm<br>21.4 cm <sup>3</sup><br>4.27 cm <sup>2</sup><br>81.7 cm <sup>2</sup><br>7.38 cm |                      |
| <b>Inductance</b>          | $\mu_i$ (reference)<br>$A_L$ value (nominal)<br>Test Winding<br>Frequency<br>Voltage on Agilent 4284A<br>AL tolerance   | 60<br>135 nH/N <sup>2</sup><br>N=70, #20 AWG<br>10 kHz<br>0.62 V<br>±8%  |                      |
| <b>Core Loss</b>           | Core Loss(mW/cm <sup>3</sup> ): $\frac{f}{\frac{a}{Bpk^3} + \frac{b}{Bpk^{2.3}} + \frac{c}{Bpk^{1.65}}} + d \cdot Bpk^2 \cdot f^2$<br>where $B_{pk}$ expressed in gauss, $f$ expressed in hertz, and:<br>$a=7.890E+09$ , $b=7.111E+08$ , $c=8.980E+06$ , $d=2.846E-14$<br>$B_{pk}$<br>frequency<br>Core Loss (nominal)<br>Core Loss (maximum) | 1000 G<br>50 kHz<br>323 mW/cm <sup>3</sup><br>372 mW/cm <sup>3</sup>   |                      |
| <b>DC Saturation</b>       | $\% \mu_i \frac{1}{a + b \cdot H^c} + d$<br>where H expressed in oersteds, and:<br>$a=1.000E-02$ , $b=2.151E-06$ , $c=1.841$ , $d=0.000$<br>$H_{DC}$<br>Percent Initial Perm.(nom.)<br>Percent Initial Perm.(min.)  | 100 Oe<br>49.2%<br>40.9%   |                      |
| <b>Coating/Pkg</b>         | Coating Type:<br>Voltage Breakdown (min.)<br>Limit<br>Package Quantity  | Blue Epoxy<br>1000 Vrms<br>0.1 mA, 5 s<br>100 Pcs/Box  |                      |

|                      |                     |        |       |        |        |         |         |         |         |         |         |       |       |
|----------------------|---------------------|--------|-------|--------|--------|---------|---------|---------|---------|---------|---------|-------|-------|
| <b>Winding Table</b> | <b>Wire Size</b>    | AWG    | 8     | 10     | 12     | 14      | 16      | 18      | 20      | 22      | 24      | 26    | 28    |
|                      |                     | mm     | 3.150 | 2.500  | 2.000  | 1.600   | 1.250   | 1.000   | 0.800   | 0.630   | 0.500   | 0.400 | 0.315 |
|                      | <b>Single Layer</b> | Turns  | 17    | 22     | 28     | 35      | 45      | 56      | 70      | 88      | 111     | 138   | 173   |
|                      |                     | Rdc(Ω) | 2.6 m | 5.3 m  | 10.7 m | 21.4 m  | 43.7 m  | 86.5 m  | 171.9 m | 343.7 m | 689.5 m | 1.4   | 2.7   |
| <b>Full Winding</b>  | Turns               | 22     | 35    | 54     | 83     | 128     | 199     | 307     | 476     | 736     | 1,139   | 1,764 |       |
|                      | Rdc(Ω)              | 3.3 m  | 8.4 m | 20.7 m | 50.7 m | 124.3 m | 307.3 m | 753.9 m | 1.9     | 4.6     | 11.3    | 27.7  |       |

