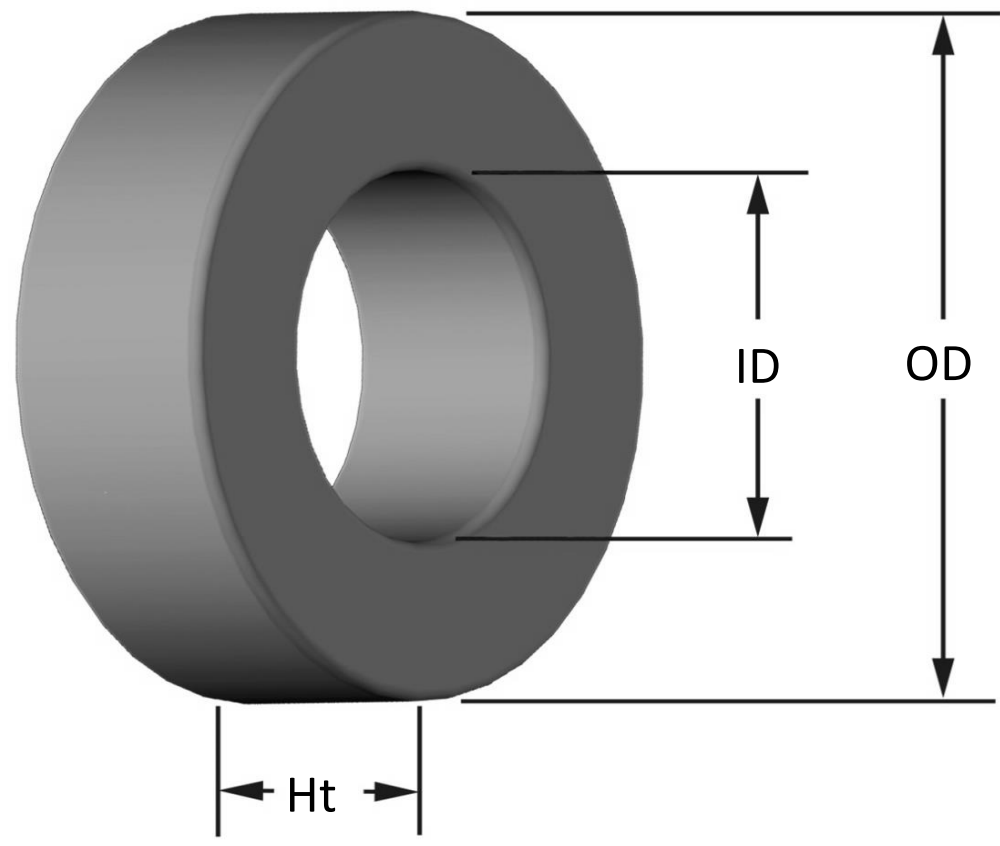




**Part Number:** **T16-10**  
Revision 20160713 - Generated 2016-Aug-15



|                             |  |                        |                      |
|-----------------------------|--|------------------------|----------------------|
| <b>OD</b>                   | (nom. - bare core)<br>(max. - after coating)   | 4.06 mm<br>4.32 mm     | 0.160 in<br>0.170 in |
| <b>ID</b>                   | (nom. - bare core)<br>(min. - after coating)   | 1.98 mm<br>1.73 mm     | 0.078 in<br>0.068 in |
| <b>Ht</b>                   | (nom. - bare core)<br>(max. - after coating)   | 1.52 mm<br>1.78 mm     | 0.060 in<br>0.070 in |
| <b>Mass</b>                 | (approximate)  | 0.07 grams             |                      |
| <b>Magnetic Dimensions</b>  | A <sub>e</sub> - Eff. Mag. Cross Section   | 0.0150 cm <sup>2</sup> |                      |
|                             | L <sub>e</sub> - Eff. Mag. Path Length   | 0.930 cm               |                      |
|                             | V <sub>e</sub> - Eff. Core Volume  | 0.0141 cm <sup>3</sup> |                      |
|                             | WA - Min. Eff. Window Area   | 0.0234 cm <sup>2</sup> |                      |
|                             | sa - Surface Area  | 0.658 cm <sup>2</sup>  |                      |
|                             | mlt - mean length per turn   | 0.701 cm               |                      |
| <b>Inductance</b>           | μ <sub>i</sub> (reference)   | 6                      |                      |
|                             | A <sub>L</sub> value (nominal)   | 1.3 nH/N <sup>2</sup>  |                      |
|                             | Test Winding   | N=40, #36 AWG          |                      |
|                             | Frequency  | 1 MHz                  |                      |
|                             | Voltage on Agilent 4284A   | 0.27 V                 |                      |
| A <sub>L</sub> tolerance    | ±5%  |                        |                      |
| <b>Core Loss &amp; Q</b>    | Core Loss(mW/cm <sup>3</sup> )= $\frac{f}{\frac{a}{B_{pk}^3} + \frac{b}{B_{pk}^{2.3}} + \frac{c}{B_{pk}^{1.65}}} + d \cdot B_{pk}^2 \cdot f^2$ |                        |                      |
|                             | where B <sub>pk</sub> expressed in gauss, f expressed in hertz, and:<br>a=4.00E+09, b=3.00E+08, c=2.70E+06, d=8.00E-16                         |                        |                      |
|                             | Q test winding   | N=15, #30 AWG          |                      |
|                             | Q frequency  | 25 MHz                 |                      |
| Q min on HP4342A            | 95   |                        |                      |
| <b>DC Saturation</b>        | %μ <sub>i</sub> = $\frac{1}{a + b \cdot H^c} + d$  |                        |                      |
|                             | where H expressed in oersteds, and:<br>a=1.00E-02, b=5.54E-09, c=1.69, d=0.00  |                        |                      |
|                             | H <sub>DC</sub>  | 200 Oe                 |                      |
|                             | Percent Initial Perm.(nom.)  | 99.6%                  |                      |
| Percent Initial Perm.(min.) | 99.4%  |                        |                      |
| <b>Coating/Pkg</b>          | Coating Type:  | Parylene C             |                      |
|                             | Voltage Breakdown (min.)   | 500 Vrms, 60Hz         |                      |
|                             | Limit  | 0.1 mA, 5 s            |                      |
|                             | Package Quantity   | 50,000 Pcs/Box         |                      |

|                      |                     |        |        |        |         |         |         |         |       |       |       |      |      |
|----------------------|---------------------|--------|--------|--------|---------|---------|---------|---------|-------|-------|-------|------|------|
| <b>Winding Table</b> | <b>Wire Size</b>    | AWG    | 28     | 30     | 32      | 34      | 36      | 38      | 40    | 42    | 44    | #N/A | #N/A |
|                      |                     | mm     | 0.315  | 0.250  | 0.200   | 0.160   | 0.125   | 0.100   | 0.080 | 0.063 | 0.050 | #N/A | #N/A |
|                      | <b>Single Layer</b> | Turns  | 10     | 13     | 17      | 22      | 28      | 36      | 45    | 57    | 72    | #N/A | #N/A |
|                      |                     | Rdc(Ω) | 14.9 m | 30.9 m | 64.2 m  | 132.1 m | 267.3 m | 546.6 m | 1.1   | 2.2   | 4.4   | #N/A | #N/A |
| <b>Full Winding</b>  | Turns               | 10     | 15     | 23     | 36      | 56      | 86      | 133     | 206   | 319   | #N/A  | #N/A |      |
|                      | Rdc(Ω)              | 14.9 m | 35.6 m | 86.8 m | 216.1 m | 534.6 m | 1.3     | 3.2     | 7.9   | 19.5  | #N/A  | #N/A |      |

