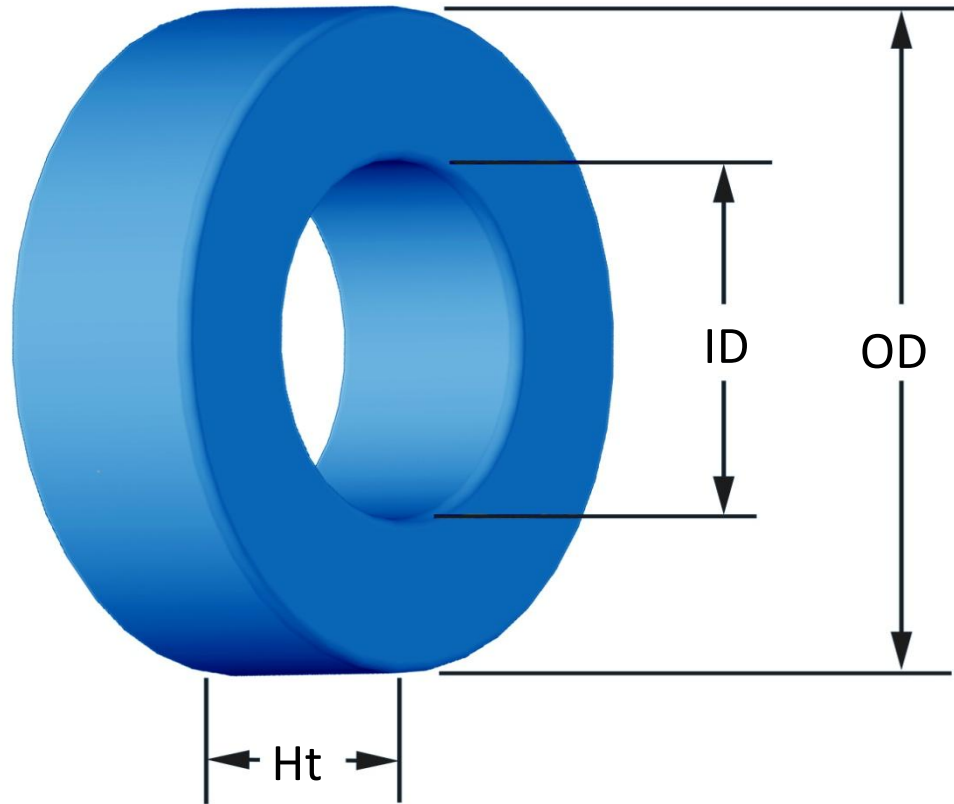




**Part Number:** **SH-184026-2**

Revision 20190403 - Generated 2019-Apr-04



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

|  |   |  |                      |
|--|---|--|----------------------|
| <b>OD</b>  | (nom. - bare core)<br>(max.)  | 46.74 mm<br>47.63 mm   | 1.840 in<br>1.875 in |
| <b>ID</b>  | (nom. - bare core)<br>(min.)  | 24.13 mm<br>23.32 mm   | 0.950 in<br>0.918 in |
| <b>HT</b>  | (nom. - bare core)<br>(max.)  | 18.03 mm<br>18.92 mm   | 0.710 in<br>0.745 in |
| <b>Mass</b>  | (approximate)   | 110 grams  |                      |
| <b>Magnetic Dimensions</b>   | A <sub>e</sub> - Eff. Mag. Cross Section  | 1.99 cm <sup>2</sup>   |                      |
|  | L <sub>e</sub> - Eff. Mag. Path Length  | 10.743 cm  |                      |
|  | V <sub>e</sub> - Eff. Core Volume   | 21.4 cm <sup>3</sup>   |                      |
|  | WA - Min. Eff. Window Area  | 4.27 cm <sup>2</sup>   |                      |
|  | sa - Surface Area   | 81.7 cm <sup>2</sup>   |                      |
| <b>Inductance</b>  | μ <sub>i</sub> (reference)  | 26   |                      |
|  | A <sub>L</sub> value (nominal)  | 59 nH/N <sup>2</sup>   |                      |
|  | Test Winding  | N=70, #20 AWG  |                      |
|  | Frequency   | 10 kHz   |                      |
|  | Voltage on Agilent 4284A  | 0.62 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=3.287E+08, c=5.779E+06, d=1.240E-14 |   |  |                      |
| B <sub>pk</sub>  |   | 500 G  |                      |
| frequency  |   | 100 kHz  |                      |
| Core Loss (nominal)  |   | 277 mW/cm <sup>3</sup>   |                      |
| Core Loss (maximum)  | 318 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=1.042E-06, c=1.701, d=0.000 |  |                      |
|  | H <sub>DC</sub>   | 200 Oe   |                      |
|  | Percent Initial Perm(nom.)  | 53.9%  |                      |
| Percent Initial Perm(min.)   | 46.1%   |  |                      |
| <b>Coating/Pkg</b>   | Coating Type:   | Blue Epoxy   |                      |
|  | Voltage Breakdown (min.)  | 1000 Vrms  |                      |
|  | Limit   | 0.1 mA, 5 s  |                      |
|  | Package Quantity  | 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  |       |

