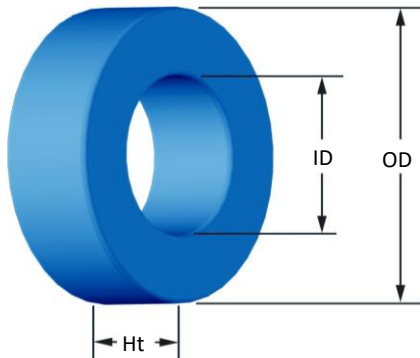




Part Number:

MS-026160-8

Revision 2022-Apr-28



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

|                            |                                                                                                                                          |                        |                      |
|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------|------------------------|----------------------|
| <b>OD</b>                  | (nom. - bare core)<br>(max.)                                                                                                             | 6.60 mm<br>7.32 mm     | 0.260 in<br>0.288 in |
| <b>ID</b>                  | (nom. - bare core)<br>(min.)                                                                                                             | 2.67 mm<br>2.21 mm     | 0.105 in<br>0.087 in |
| <b>HT</b>                  | (nom. - bare core)<br>(max.)                                                                                                             | 4.78 mm<br>5.54 mm     | 0.188 in<br>0.218 in |
| <b>Mass</b>                | (approximate)                                                                                                                            | 0.74 grams             |                      |
| <b>Magnetic Dimensions</b> | A <sub>e</sub> - Eff. Mag. Cross Section                                                                                                 | 0.0920 cm <sup>2</sup> |                      |
|                            | L <sub>e</sub> - Eff. Mag. Path Length                                                                                                   | 1.36 cm                |                      |
|                            | V <sub>e</sub> - Eff. Core Volume                                                                                                        | 0.125 cm <sup>3</sup>  |                      |
|                            | WA - Min. Eff. Window Area                                                                                                               | 0.0384 cm <sup>2</sup> |                      |
|                            | sa - Surface Area                                                                                                                        | 2.44 cm <sup>2</sup>   |                      |
| <b>Inductance</b>          | mlt - mean length per turn                                                                                                               | 1.73 cm                |                      |
|                            | μ <sub>i</sub> (reference)                                                                                                               | 160                    |                      |
|                            | A <sub>L</sub> value (nominal)                                                                                                           | 132 nH/N <sup>2</sup>  |                      |
|                            | Test Winding                                                                                                                             | N=35, #32 AWG          |                      |
|                            | Frequency                                                                                                                                | 10 kHz                 |                      |
| <b>Core Loss</b>           | Voltage on Agilent 4284A                                                                                                                 | 0.014 V                |                      |
|                            | AL tolerance                                                                                                                             | ±12%                   |                      |
|                            | $\text{Core Loss (mW/cm}^3\text{)} = \frac{a}{B_{pk}^3} + \frac{b}{B_{pk}^{2.3}} + \frac{c}{B_{pk}^{1.65}} + d \cdot B_{pk}^2 \cdot f^2$ |                        |                      |
|                            | where B <sub>pk</sub> expressed in gauss, f expressed in hertz, and:<br>a=1.394E+10, b=1.034E+09, c=1.244E+07, d=4.007E-14               |                        |                      |
|                            | B <sub>pk</sub>                                                                                                                          | 1000 G                 |                      |
| <b>DC Saturation</b>       | frequency                                                                                                                                | 50 kHz                 |                      |
|                            | Core Loss (nominal)                                                                                                                      | 276 mW/cm <sup>3</sup> |                      |
|                            | Core Loss (maximum)                                                                                                                      | 318 mW/cm <sup>3</sup> |                      |
|                            | $\% \mu_i = \frac{1}{a + b \cdot H^c} + d$                                                                                               |                        |                      |
|                            | where H expressed in oersteds, and:<br>a=1.000E-02, b=4.439E-05, c=1.627, d=0.000                                                        |                        |                      |
| <b>Coating/Pkg</b>         | H <sub>DC</sub>                                                                                                                          | 40 Oe                  |                      |
|                            | Percent Initial Perm(nom.)                                                                                                               | 35.8%                  |                      |
|                            | Percent Initial Perm(min.)                                                                                                               | 29.3%                  |                      |
|                            | Coating Type:                                                                                                                            | Parylene N             |                      |
|                            | Voltage Breakdown (min.)                                                                                                                 | 500 Vrms               |                      |
| <b>Winding Table</b>       | Limit                                                                                                                                    | 0.1 mA, 5 s            |                      |
|                            | Package Quantity                                                                                                                         | 14,400 Pcs/Box         |                      |
|                            | Wire Size                                                                                                                                | AWG                    | 26                   |
|                            |                                                                                                                                          | mm                     | 0.400                |
|                            |                                                                                                                                          |                        | 0.315                |
|                            |                                                                                                                                          |                        | 0.250                |
|                            |                                                                                                                                          |                        | 0.200                |
|                            |                                                                                                                                          |                        | 0.160                |
|                            |                                                                                                                                          |                        | 0.125                |
|                            |                                                                                                                                          |                        | 0.100                |
|                            |                                                                                                                                          |                        | 0.080                |
|                            |                                                                                                                                          |                        | 0.063                |
|                            |                                                                                                                                          |                        | 0.050                |
|                            |                                                                                                                                          |                        | -                    |
|                            | Single Layer                                                                                                                             | Turns                  | 11                   |
|                            |                                                                                                                                          | Rdc(Ω)                 | 25.5 m               |
|                            |                                                                                                                                          |                        | 51.5 m               |
|                            |                                                                                                                                          |                        | 105.4 m              |
|                            |                                                                                                                                          |                        | 214.2 m              |
|                            |                                                                                                                                          |                        | 429.4 m              |
|                            |                                                                                                                                          |                        | 871.4 m              |
|                            |                                                                                                                                          |                        | 1.8                  |
|                            |                                                                                                                                          |                        | 3.5                  |
|                            |                                                                                                                                          |                        | 7.0                  |
|                            |                                                                                                                                          |                        | 14.0                 |
|                            |                                                                                                                                          |                        | -                    |
|                            | Full Winding                                                                                                                             | Turns                  | 10                   |
|                            |                                                                                                                                          | Rdc(Ω)                 | 23.1 m               |
|                            |                                                                                                                                          |                        | 58.9 m               |
|                            |                                                                                                                                          |                        | 146.4 m              |
|                            |                                                                                                                                          |                        | 353.8 m              |
|                            |                                                                                                                                          |                        | 873.7 m              |
|                            |                                                                                                                                          |                        | 2.1                  |
|                            |                                                                                                                                          |                        | 5.3                  |
|                            |                                                                                                                                          |                        | 13.0                 |
|                            |                                                                                                                                          |                        | 31.9                 |
|                            |                                                                                                                                          |                        | 78.6                 |
|                            |                                                                                                                                          |                        | -                    |

