

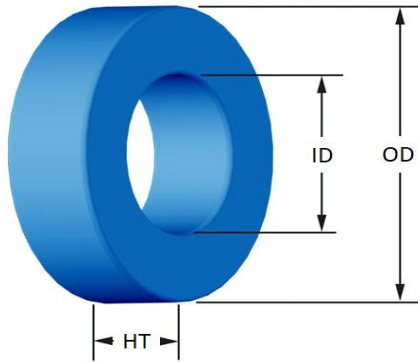


Part Number:

MS-133160-2

Revision:

2023-Dec-06



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

|    |                    | mm    | in    |
|----|--------------------|-------|-------|
| OD | (nom. - bare core) | 33.02 | 1.300 |
|    | (max.)             | 33.83 | 1.332 |
| ID | (nom. - bare core) | 19.94 | 0.785 |
|    | (min.)             | 19.30 | 0.760 |
| HT | (nom. - bare core) | 14.00 | 0.551 |
|    | (max.)             | 15.00 | 0.591 |

|                     |                                          |          |                   |
|---------------------|------------------------------------------|----------|-------------------|
| Mass                | (approximate)                            | 42       | grams             |
|                     | A <sub>e</sub> - Eff. Mag. Cross Section | 0.874    | cm <sup>2</sup>   |
|                     | L <sub>e</sub> - Eff. Mag. Path Length   | 8.15     | cm                |
|                     | V <sub>e</sub> - Eff. Core Volume        | 7.12     | cm <sup>3</sup>   |
|                     | WA - Min. Eff. Window Area               | 2.93     | cm <sup>2</sup>   |
|                     | sa - Surface Area                        | 44.3     | cm <sup>2</sup>   |
| Magnetic Dimensions | mlt - mean length per turn               | 5.42     | cm                |
|                     | μ <sub>i</sub> (reference)               | 160      |                   |
|                     | A <sub>i</sub> value (nominal)           | 213      | nH/N <sup>2</sup> |
|                     | Test Winding                             | 70 Turns | AWG# 22           |
|                     | Frequency                                | 10k      | Hz                |
|                     | Voltage on Agilent 4284A                 | 0.27     | V                 |
| Inductance          | AL tolerance                             | ±8%      |                   |

|            |                                |          |                   |    |
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|            | Test Winding                   | 70 Turns | AWG#              |    |
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|            | Voltage on Agilent 4284A       | 0.27     | V                 |    |
|            | AL tolerance                   | ±8%      |                   |    |

|           |                                                                                                                                                    |
|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| Core Loss | $\text{Core Loss (mW/cm}^3\text{)} = \frac{f}{\frac{a}{B_{pk}^3} + \frac{b}{B_{pk}^{2.3}} + \frac{c}{B_{pk}^{1.65}}} + d \cdot B_{pk}^2 \cdot f^2$ |
|           | where $B_{pk}$ expressed in gauss, $f$ expressed in hertz, and:<br>$a=1.394E+10$ , $b=1.034E+09$ , $c=1.244E+07$ , $d=4.007E-14$                   |
|           |                                                                                                                                                    |

|    |                     |      |                    |
|----|---------------------|------|--------------------|
| Co | B <sub>pk</sub>     | 1000 | G                  |
|    | frequency           | 50 k | Hz                 |
|    | Core Loss (nominal) | 276  | mW/cm <sup>3</sup> |
|    | Core Loss (maximum) | 318  | mW/cm <sup>3</sup> |

|            |                                              |
|------------|----------------------------------------------|
| Saturation | $\% \mu_i \frac{1}{a + b \cdot H^c} + d$     |
|            | where H expressed in oersteds, and:          |
|            | $a=1.000E-02, b=4.439E-05, c=1.627, d=0.000$ |

|             |                          |             |      |
|-------------|--------------------------|-------------|------|
| Coating/Pkg | Coating Type:            | Blue Epoxy  |      |
|             | Voltage Breakdown (min.) | 1000        | Vrms |
|             | Limit                    | 0.1 mA, 5 s |      |
|             | Package Quantity         | 252 Pcs/Box |      |

|             |                          |             |      |
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