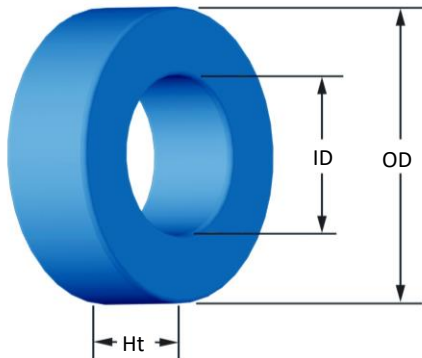




Part Number:

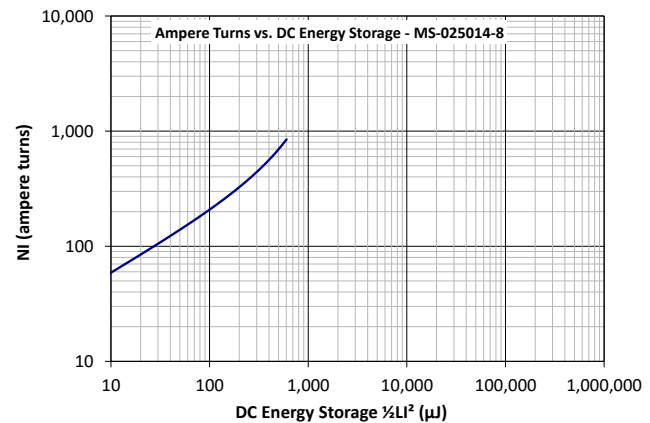
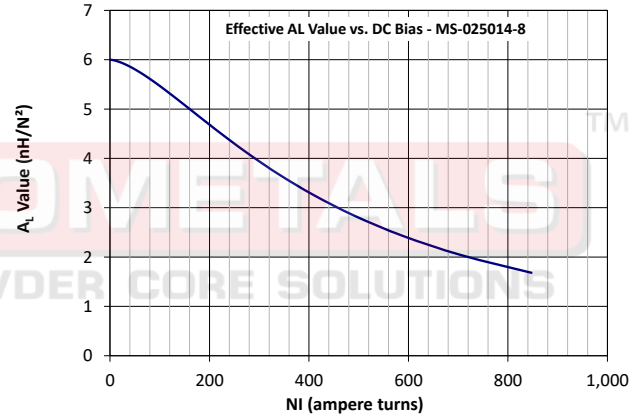
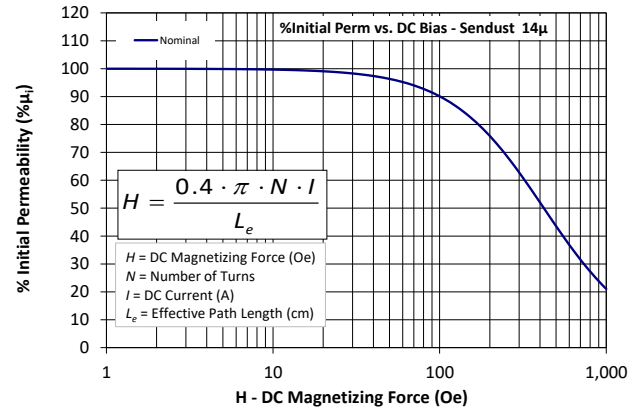
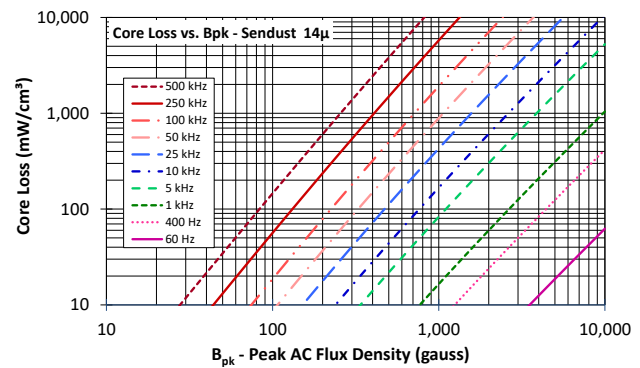
**MS-025014-8**

Revision 2021-Dec-01 - Generated 2021-Dec-01



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

|                            |                                                                      |                                                                                                      |                      |
|----------------------------|----------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|----------------------|
| <b>OD</b>                  | (nom. - bare core)<br>(max.)                                         | 6.35 mm<br>6.99 mm                                                                                   | 0.250 in<br>0.275 in |
| <b>ID</b>                  | (nom. - bare core)<br>(min.)                                         | 2.79 mm<br>2.29 mm                                                                                   | 0.110 in<br>0.090 in |
| <b>HT</b>                  | (nom. - bare core)<br>(max.)                                         | 2.79 mm<br>3.43 mm                                                                                   | 0.110 in<br>0.135 in |
| <b>Mass</b>                | (approximate)                                                        | 0.31 grams                                                                                           |                      |
| <b>Magnetic Dimensions</b> | A <sub>e</sub> - Eff. Mag. Cross Section                             | 0.0476 cm <sup>2</sup>                                                                               |                      |
|                            | L <sub>e</sub> - Eff. Mag. Path Length                               | 1.36 cm                                                                                              |                      |
|                            | V <sub>e</sub> - Eff. Core Volume                                    | 0.0642 cm <sup>3</sup>                                                                               |                      |
|                            | WA - Min. Eff. Window Area                                           | 0.0412 cm <sup>2</sup>                                                                               |                      |
|                            | SA - Surface Area                                                    | 1.80 cm <sup>2</sup>                                                                                 |                      |
| <b>Inductance</b>          | μ <sub>i</sub> (reference)                                           | 14                                                                                                   |                      |
|                            | A <sub>L</sub> value (nominal)                                       | 6 nH/N <sup>2</sup>                                                                                  |                      |
|                            | Test Winding                                                         | N=30, #32 AWG                                                                                        |                      |
|                            | Frequency                                                            | 10 kHz                                                                                               |                      |
|                            | Voltage on Agilent 4284A                                             | 0.006 V                                                                                              |                      |
| <b>Core Loss</b>           | AL tolerance                                                         | ±12%                                                                                                 |                      |
|                            | Core Loss(mW/cm <sup>3</sup> ):                                      | $\frac{a}{B_{pk}^3} + \frac{b}{B_{pk}^{2.3}} + \frac{c}{B_{pk}^{1.65}} + d \cdot B_{pk}^2 \cdot f^2$ |                      |
|                            | where B <sub>pk</sub> expressed in gauss, f expressed in hertz, and: | a=1.000E+06, b=1.814E+08, c=3.377E+06, d=2.628E-14                                                   |                      |
|                            | B <sub>pk</sub>                                                      | 300 G                                                                                                |                      |
|                            | frequency                                                            | 100 kHz                                                                                              |                      |
| <b>DC Saturation</b>       | Core Loss (nominal)                                                  | 180 mW/cm <sup>3</sup>                                                                               |                      |
|                            | Core Loss (maximum)                                                  | 207 mW/cm <sup>3</sup>                                                                               |                      |
|                            | %μ <sub>i</sub>                                                      | $\frac{1}{a + b \cdot H^c} + d$                                                                      |                      |
|                            | where H expressed in oersteds, and:                                  | a=1.000E-02, b=9.443E-07, c=1.533, d=0.000                                                           |                      |
|                            | H <sub>DC</sub>                                                      | 200 Oe                                                                                               |                      |
| <b>Coating/Pkg</b>         | Percent Initial Perm(nom.)                                           | 75.9%                                                                                                |                      |
|                            | Percent Initial Perm(min.)                                           | 70.4%                                                                                                |                      |
|                            | Coating Type:                                                        | Parylene N                                                                                           |                      |
|                            | Voltage Breakdown (min.)                                             | 500 Vrms                                                                                             |                      |
|                            | Limit                                                                | 0.1 mA, 5 s                                                                                          |                      |
| <b>Winding Table</b>       | Package Quantity                                                     | 21,600 Pcs/Box                                                                                       |                      |
|                            | Wire Size                                                            | AWG                                                                                                  | 26                   |
|                            |                                                                      | mm                                                                                                   | 0.400                |
|                            | Single Layer                                                         | Turns                                                                                                | 11                   |
|                            | Full Winding                                                         | Turns                                                                                                | 17                   |



|                      |                     |        |        |        |         |         |         |         |       |       |       |       |   |
|----------------------|---------------------|--------|--------|--------|---------|---------|---------|---------|-------|-------|-------|-------|---|
| <b>Winding Table</b> | <b>Wire Size</b>    | AWG    | 26     | 28     | 30      | 32      | 34      | 36      | 38    | 40    | 42    | 44    | - |
|                      |                     | mm     | 0.400  | 0.315  | 0.250   | 0.200   | 0.160   | 0.125   | 0.100 | 0.080 | 0.063 | 0.050 | - |
|                      | <b>Single Layer</b> | Turns  | 11     | 14     | 19      | 24      | 30      | 38      | 49    | 61    | 77    | 96    | - |
|                      |                     | Rdc(Ω) | 18.7 m | 37.9 m | 81.7 m  | 164.2 m | 326.3 m | 657.4 m | 1.3   | 2.7   | 5.4   | 10.6  | - |
|                      | <b>Full Winding</b> | Turns  | 11     | 17     | 26      | 41      | 63      | 98      | 151   | 234   | 362   | 560   | - |
|                      |                     | Rdc(Ω) | 18.7 m | 46.0 m | 111.8 m | 280.4 m | 685.3 m | 1.7     | 4.2   | 10.2  | 25.2  | 62.0  | - |