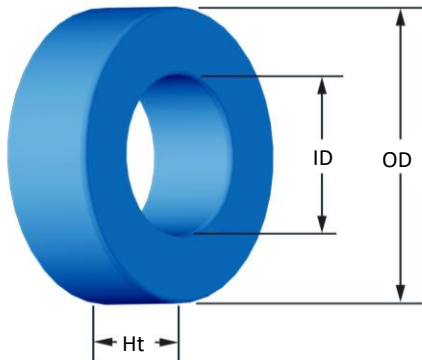




Part Number:

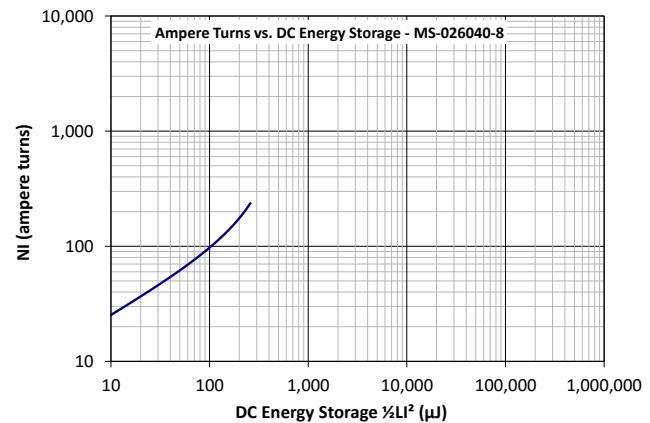
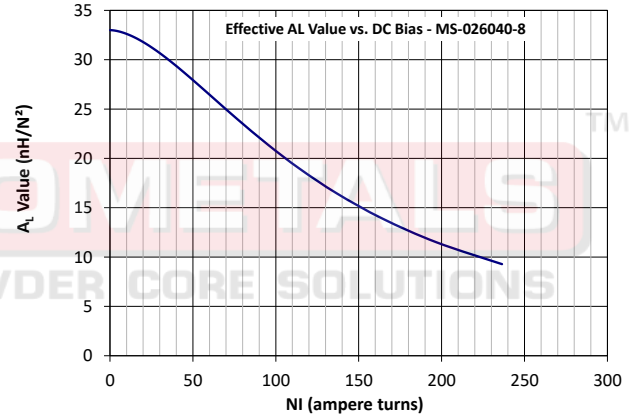
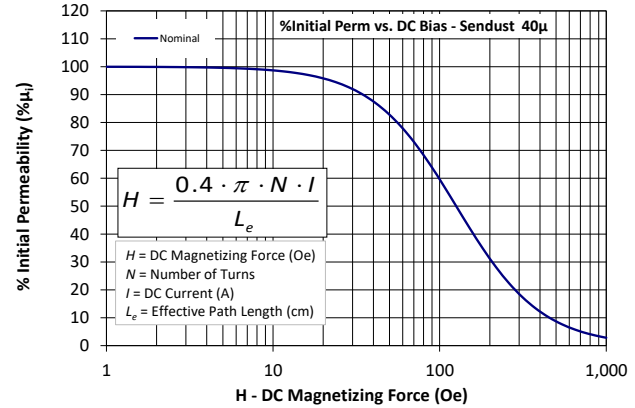
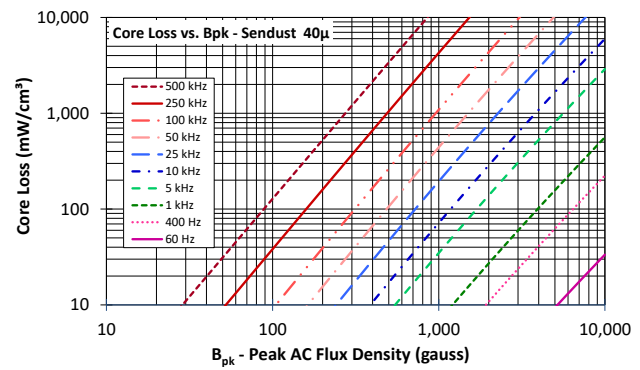
**MS-026040-8**

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



(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)                                                                                                                            | 0.68 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)                                                                                                               | 40                     |                      |
|                            | A <sub>L</sub> value (nominal)                                                                                                           | 33 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=1.000E+06, b=6.961E+08, c=5.397E+06, d=4.127E-14               |                        |                      |
|                            | B <sub>pk</sub>                                                                                                                          | 1000 G                 |                      |
| <b>DC Saturation</b>       | frequency                                                                                                                                | 50 kHz                 |                      |
|                            | Core Loss (nominal)                                                                                                                      | 441 mW/cm <sup>3</sup> |                      |
|                            | Core Loss (maximum)                                                                                                                      | 507 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=2.655E-06, c=1.703, d=0.000                                                        |                        |                      |
| <b>Coating/Pkg</b>         | H <sub>DC</sub>                                                                                                                          | 100 Oe                 |                      |
|                            | Percent Initial Perm(nom.)                                                                                                               | 59.6%                  |                      |
|                            | Percent Initial Perm(min.)                                                                                                               | 52.0%                  |                      |
|                            | 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                |
|                            | Single Layer                                                                                                                             | Turns                  | 11                   |
|                            |                                                                                                                                          | Rdc(Ω)                 | 25.5 m               |
|                            | Full Winding                                                                                                                             | Turns                  | 10                   |
|                            |                                                                                                                                          | Rdc(Ω)                 | 23.1 m               |



|                      |                     |        |        |        |         |         |         |         |       |       |       |       |   |
|----------------------|---------------------|--------|--------|--------|---------|---------|---------|---------|-------|-------|-------|-------|---|
| <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     | 18      | 23      | 29      | 37      | 47    | 59    | 74    | 93    | - |
|                      |                     | 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  | - |
|                      | <b>Full Winding</b> | Turns  | 10     | 16     | 25      | 38      | 59      | 91      | 141   | 218   | 337   | 522   | - |
|                      |                     | 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  | - |