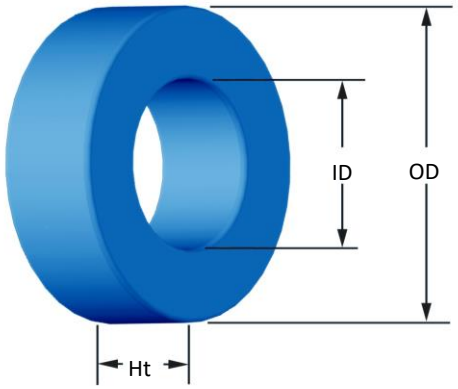
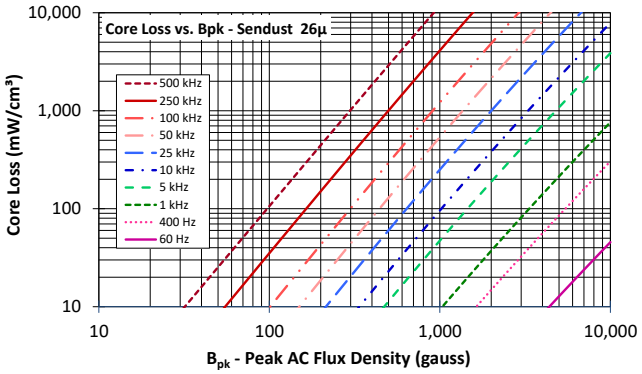
MICROMETALS
ALLOY POWDER CORES

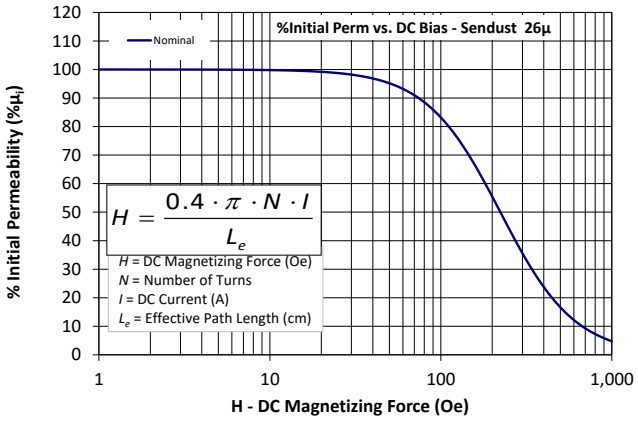
| Part Number: | MS-350026-2 |
|---|---|

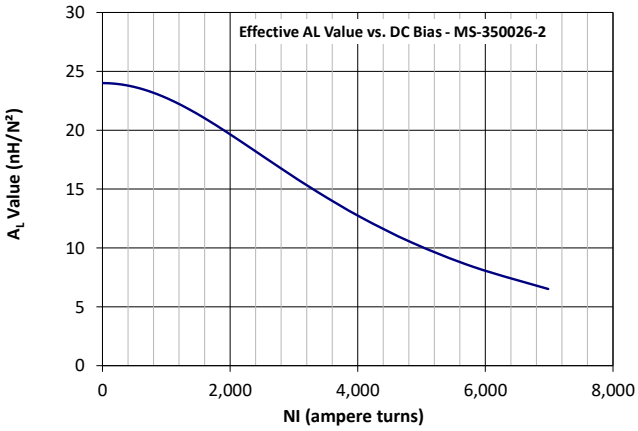
Revision 20170623 - Generated 2017-Jun-23

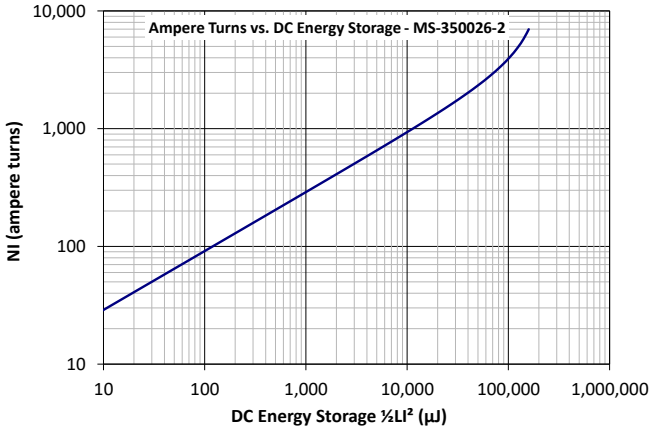



| | | | |
|---|---|---|---|
| **OD** | (nom. - bare core) | 88.85 mm | 3.498 in |
| | (max. - after coating) | 90.00 mm | 3.543 in |
| **ID** | (nom. - bare core) | 66.01 mm | 2.599 in |
| | (min. - after coating) | 64.74 mm | 2.549 in |
| **Ht** | (nom. - bare core) | 15.93 mm | 0.627 in |
| | (max. - after coating) | 17.20 mm | 0.677 in |
| **Mass** | (approximate) | 220 grams | |
| **Magnetic Dimensions** | $A_e$ - Eff. Mag. Cross Section | 1.83 cm² | |
| | $L_e$ - Eff. Mag. Path Length | 24 cm | |
| | $V_e$ - Eff. Core Volume | 43.9 cm³ | |
| | WA - Min. Eff. Window Area | 32.9 cm² | |
| | sa - Surface Area | 251 cm² | |
| | mlt - mean length per turn | 9.20 cm | |
| **Inductance** | $\mu_i$(reference) | 26 | |
| | $A_L$ value (nominal) | 24 nH/N² | |
| | Test Winding | N=100, #18 AWG | |
| | Frequency | 10 kHz | |
| | Voltage on Agilent 4284A | 0.81 V | |
| | AL tolerance | ±8% | |
| **Core Loss** | Core Loss(mW/cm³)= $\frac{f}{\frac{a}{Bpk^3}+\frac{b}{Bpk^{2.3}}+\frac{c}{Bpk^{1.65}}}+d\cdot Bpk^2\cdot f^2$ | | |
| | where $B_{pk}$ expressed in gauss, $f$ expressed in hertz, and: | | |
| | *a=1.000E+06, b=4.969E+08, c=3.993E+06, d=2.867E-14* | | |
| | $B_{pk}$ | 500 G | |
| | frequency | 100 kHz | |
| | Core Loss (nominal) | 295 mW/cm³ | |
| | Core Loss (maximum) | 339 mW/cm³ | |
| **DC Saturation** | $\%\mu_i \frac{1}{a+b\cdot H^c}+d$ | | |
| | where H expressed in oersteds, and: | | |
| | *a=1.000E-02, b=2.061E-07, c=1.995, d=0.000* | | |
| | $H_{DC}$ | 200 Oe | |
| | Percent Initial Perm(nom.) | 55.4% | |
| | Percent Initial Perm(min.) | 46.3% | |
| **Coating/Pkg** | Coating Type: | Blue Epoxy | |
| | Voltage Breakdown (min.) | 1000 Vrms | |
| | Limit | 0.1 mA, 5 s | |
| | Package Quantity | 45 Pcs/Box | |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Winding Table** | **Wire Size** | 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 |
| | **Single Layer** | Turns | 52 | 65 | 82 | 103 | 129 | 161 | 201 | 250 | 312 | 389 | 485 |
| | | Rdc(Ω) | 9.8 m | 19.6 m | 39.2 m | 78.4 m | 156.2 m | 310.0 m | 615.5 m | 1.2 | 2.4 | 4.8 | 9.5 |
| | **Full Winding** | Turns | 172 | 267 | 413 | 639 | 989 | 1,530 | 2,369 | 3,666 | 5,674 | 8,782 | 13,592 |
| | | Rdc(Ω) | 32.5 m | 80.4 m | 197.7 m | 486.4 m | 1.2 | 2.9 | 7.3 | 17.9 | 43.9 | 108.2 | 266.3 |


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