

# CS270090G

## Electrical Characteristics

| Material | Permeability (μ) | AL ± 8% (nH/N2) | DCB (% , min) @ 30 Oe | Coreloss (mW/cm <sup>3</sup> , max) @50kHz, 1000G |
|----------|------------------|-----------------|-----------------------|---|
| SENDUST  | 90               | 113             | 64.40                 | 320   |

OD : 270



## Core Dimensions

| Dimensions |       | Uncoated |        | Coated |        | Color | Packaging         |
|------------|-------|----------|--------|--------|--------|-------|-------------------|
|            |       | (mm)     | (inch) | (mm)   | (inch) |       |                   |
| OD         | (Max) | 26.92    | 1.060  | 27.70  | 1.090  | Black | Box Qty = 360 pcs |
| ID         | (min) | 14.73    | 0.580  | 14.10  | 0.555  |       |                   |
| HT         | (max) | 11.18    | 0.440  | 11.99  | 0.472  |       |                   |

## Physical Characteristics

| Cross Section (A)      | Path Length (ℓ) | Window Area (Wa)     | Volume (V)             | Breakdown Voltage (Vac) |
|------------------------|-----------------|----------------------|------------------------|-------------------------|
| 0.654 cm <sup>2</sup>  | 6.35 cm         | 1.56 cm <sup>2</sup> | 4.154 cm <sup>3</sup>  | 1,000                   |
| 0.1014 in <sup>2</sup> | 2.50 in         | 308,000 cmil         | 0.2536 in <sup>3</sup> |                         |

## Winding Information

| AWG Wire No. Dia. (cm) |        | Single Layer Turn Rdc. (Ω) |        | AWG Wire No. Dia. (cm) |         | Single Layer Turn Rdc. (Ω) |       | Winding length/turn (cm)                              |       |       |
|------------------------|--------|----------------------------|--------|------------------------|---------|----------------------------|-------|---|-------|-------|
| 28                     | 0.0366 | 9                          | 0.0237 | 37                     | 0.0140  | 27                         | 0.363 | 3.758   |       |       |
| 29                     | 0.0330 | 10                         | 0.0314 | 38                     | 0.0124  | 30                         | 0.503 |   |       |       |
| 30                     | 0.0294 | 11                         | 0.0431 | 39                     | 0.0199  | 35                         | 0.727 | 40% winding factor<br>Surface Area (cm <sup>2</sup> ) |       |       |
| 31                     | 0.0267 | 13                         | 0.0581 | 40                     | 0.0096  | 40                         | 1.02  |   |       |       |
| 32                     | 0.0241 | 14                         | 0.0768 | 41                     | 0.00863 | 44                         | 1.37  | 34.42   |       |       |
| 33                     | 0.0216 | 16                         | 0.1050 | 42                     | 0.00762 | 50                         | 1.90  |   |       |       |
| 34                     | 0.0191 | 19                         | 0.1460 | 43                     | 0.00685 | 56                         | 2.67  | 40% Wound Di.(mm)                                     |       |       |
| 35                     | 0.0170 | 21                         | 0.2000 | 44                     | 0.00635 | 60                         | 3.45  |   |       |       |
| 36                     | 0.0152 | 24                         | 0.2720 |                        |         |                            |       | OD  | ID    | HT    |
|                        |        |                            |        |                        |         |                            |       | 31.16   | 9.226 | 16.16 |

## Typical DC Bias Performance

