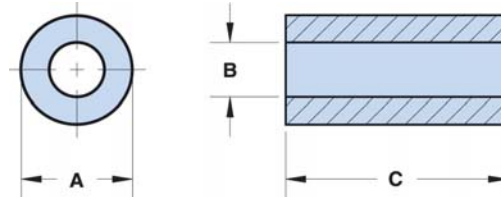


Fair-Rite offers a broad selection of ferrite EMI suppression beads with guaranteed minimum impedance specifications.



- Beads with a "1" as the last digit of the part number are not burnished. Parts that are burnished to break the sharp edges have a "2" as the last digit.
- Upon request beads can be supplied with a Parylene coating. The last digit of the Parylene coated part is a "4". The minimum coating thickness beads is 0.005 mm (0.0002").
- The column "H (Oe)" gives for each bead the calculated dc bias field in oersted for 1 turn and 1 ampere direct current. The actual dc H field in the application is this value of "H" times the actual NI (ampere-turn) product. For the effect of the dc bias on the impedance of the bead material, see figures 18-23 in the application note "How to choose Ferrite Components for EMI Suppression".
- Suppression beads are controlled for impedances only. Minimum impedance values are specified for the + marked frequencies. The minimum impedance is typically the listed impedance less 20%.
- Single turn impedance tests for 73 and 43 material beads are performed on the 4193A Vector Impedance Analyzer. The 61 material beads are tested on the 4291A RF Impedance Analyzer. **Beads are tested with the shortest practical wire length.**
- Performance curves for these suppression components are on our web site.
- For any EMI suppression bead requirement not listed here, feel free to contact our customer service for availability and pricing.
- The "C" dimension, the bead length, can be modified to suit specific applications.
- Our "Shield Bead Kit" (part number 0199000019) contains a selection of these beads.
- Explanation of Part Numbers: Digits 1&2 = product class, 3&4 = material grade and last digit 1= not burnished, 2 = burnished and 4 = Parylene coated.

EMI Suppression Beads



Quick Link: www.fair-rite.com/esb

Listed by frequency range and in ascending order of "B" dimension.

Legend

Dimensions (Top numbers are in millimeters, bottom numbers are in nominal inches.)

+ Test frequency

Lower Frequencies < 50 MHz (73 material)

| Part Number | A | B | C | Wt. (g) | H (Oe) | Impedance (Ω) | | | |
|-------------|--------------------------|--------------------------|---------------------------|---------|--------|------------------------|-------|---------------------|---------------------|
| | | | | | | 1 MHz | 5 MHz | 10 MHz ⁺ | 25 MHz ⁺ |
| 2673901301 | 0.95 -0.05 0.036 | 0.45 +0.10 0.020 | 3.80 \pm 0.20 0.150 | 0.01 | 6.00 | 5.3 | 13 | 16 | 24 |
| 2673004601 | 1.10 -0.10 0.041 | 0.65 +0.10 0.028 | 4.10 -0.30 0.156 | 0.01 | 4.70 | 3.3 | 8.2 | 12.5 | 19 |
| 2673004701 | 1.45 -0.15 0.054 | 0.70 +0.10 0.029 | 2.30 \pm 0.15 0.090 | 0.01 | 4.00 | 3.1 | 7.6 | 12.5 | 17 |
| 2673030101 | 1.22 -0.13 0.045 | 0.80 +0.10 0.033 | 5.30 -0.45 0.200 | 0.01 | 4.10 | 3.5 | 8.6 | 11 | 17 |
| 2673025301 | 1.25 -0.10 0.047 | 0.80 +0.10 0.033 | 3.80 \pm 0.20 0.150 | 0.01 | 4.00 | 2.9 | 7.1 | 10 | 15 |
| 2673004801 | 2.10 -0.15 0.080 | 0.85 +0.10 0.034 | 2.90 -0.45 0.105 | 0.03 | 3.10 | 5.5 | 13.5 | 18 | 28 |
| 2673028602 | 2.13 -0.10 0.082 | 0.85 +0.10 0.034 | 5.60 \pm 0.15 0.220 | 0.07 | 2.70 | 13 | 30.5 | 38 | 50 |
| 2673012401 | 1.55 -0.10 0.059 | 0.95 +0.15 0.040 | 4.20 -0.25 0.160 | 0.02 | 3.30 | 3.5 | 8.6 | 11 | 19 |
| 2673002201 | 1.95 -0.02 0.072 | 1.05 +0.10 0.043 | 10.40 \pm 0.25 0.410 | 0.09 | 2.90 | 14 | 33.5 | 38 | 55 |
| 2673000501 | 2.00 -0.15 0.076 | 1.05 +0.10 0.043 | 1.65 -0.25 0.060 | 0.01 | 2.80 | 2.1 | 6.3 | 7.5 | 12 |
| 2673000201 | 2.00 -0.15 0.076 | 1.05 +0.10 0.043 | 3.80 \pm 0.25 0.150 | 0.04 | 2.80 | 5.2 | 12.5 | 18 | 27 |
| 2673000101 | 3.50 \pm 0.20 0.138 | 1.30 \pm 0.10 0.051 | 3.25 \pm 0.25 0.128 | 0.13 | 2.00 | 8.1 | 19.5 | 25 | 35 |
| 2673000301 | 3.50 \pm 0.20 0.138 | 1.30 \pm 0.10 0.051 | 6.00 \pm 0.25 0.236 | 0.24 | 2.00 | 15.5 | 37.5 | 57 | 63 |
| 2673000701 | 3.50 \pm 0.20 0.138 | 1.30 \pm 0.10 0.051 | 12.70 \pm 0.35 0.500 | 0.51 | 2.00 | 34.5 | 81.5 | 120 | 125 |
| 2673022401 | 5.10 \pm 0.25 0.200 | 1.45 +0.25 0.062 | 6.35 \pm 0.25 0.250 | 0.56 | 1.50 | 20 | 47.5 | 54 | 58 |
| 2673021801 | 5.10 \pm 0.25 0.200 | 1.45 +0.25 0.062 | 11.10 \pm 0.35 0.437 | 1.00 | 1.50 | 35.5 | 84 | 94 | 95 |
| 2673018001 | 2.85 \pm 0.10 0.112 | 1.65 +0.15 0.068 | 6.65 \pm 0.25 0.262 | 0.13 | 1.80 | 8.3 | 20 | 29 | 41 |
| 2673004901 | 2.85 \pm 0.10 0.112 | 1.65 +0.15 0.068 | 10.45 \pm 0.25 0.410 | 0.20 | 1.80 | 13.5 | 32.5 | 40 | 58 |
| 2673001601 | 3.55 \pm 0.15 0.140 | 1.65 +0.25 0.070 | 3.30 -0.40 0.122 | 0.11 | 1.60 | 5.1 | 12.5 | 16 | 24 |
| 2673015301 | 4.10 -0.25 0.156 | 1.80 \pm 0.15 0.071 | 6.85 \pm 0.25 0.270 | 0.32 | 1.50 | 14 | 34 | 41 | 54 |
| 2673000801 | 7.50 \pm 0.25 0.296 | 2.25 +0.25 0.094 | 7.55 \pm 0.25 0.297 | 1.40 | 1.00 | 23 | 55.5 | 48 | 45 |
| 2673200201 | 5.20 \pm 0.15 0.205 | 2.65 \pm 0.25 0.105 | 20.60 \pm 0.75 0.812 | 1.60 | 1.10 | 37 | 89 | 110 | 113 |
| 2673003201 | 5.60 -0.50 0.210 | 2.65 \pm 0.25 0.105 | 12.70 \pm 0.50 0.500 | 1.00 | 1.10 | 23.5 | 56.5 | 60 | 60 |
| 2673002402 | 9.65 \pm 0.25 0.380 | 5.00 \pm 0.20 0.197 | 5.05 -0.45 0.190 | 1.20 | 0.59 | 7.9 | 19 | 19 | 15 |

Fair-Rite Products Corp. PO Box 288, One Commercial Row, Walkill, NY 12589-0288

EMI Suppression Beads



Quick Link: www.fair-rite.com/esb

Listed by frequency range and in ascending order of "B" dimension.

Broadband Frequencies 25-300 MHz (43 material)

| Part Number | A | B | C | Wt. (g) | H (Oe) | Impedance (Ω) | | | |
|-------------|----------------------|---------------------|----------------------|---------|--------|---------------|---------------------|----------------------|---------|
| | | | | | | 10 MHz | 25 MHz ⁺ | 100 MHz ⁺ | 250 MHz |
| 2643004601 | 1.10 -0.10 0.041 | 0.65 +0.10 0.028 | 4.10 -0.30 0.156 | 0.10 | 4.70 | 9 | 12.5 | 31 | 39 |
| 2643004701 | 1.45 -0.15 0.054 | 0.70 +0.10 0.029 | 2.30 ±0.15 0.090 | 0.01 | 4.00 | 8 | 12.5 | 26 | 39 |
| 2643020501 | 1.65 ±0.025 0.065 | 0.85 +0.10 0.034 | 3.68 -0.25 0.140 | 0.02 | 3.40 | 12 | 17 | 31 | 47 |
| 2643004801 | 2.10 -0.15 0.080 | 0.85 +0.10 0.034 | 2.90 -0.45 0.105 | 0.03 | 3.10 | 12 | 18 | 31 | 47 |
| 2643002201 | 1.95 -0.20 0.072 | 1.05 +0.10 0.043 | 10.40 ±0.25 0.410 | 0.08 | 2.90 | 26 | 34 | 58 | 77 |
| 2643000501 | 2.00 -0.15 0.076 | 1.05 +0.10 0.043 | 1.65 -0.25 0.060 | 0.01 | 2.80 | 6 | 9 | 22 | 33 |
| 2643000201 | 2.00 -0.15 0.076 | 1.05 +0.10 0.043 | 3.80 ±0.25 0.150 | 0.03 | 2.80 | 12 | 16 | 31 | 46 |
| 2643000101 | 3.50 ±0.20 0.138 | 1.30 ±0.10 0.051 | 3.25 ±0.25 0.128 | 0.10 | 2.00 | 17 | 26 | 40 | 56 |
| 2643000301 | 3.50 ±0.20 0.138 | 1.30 ±0.10 0.051 | 6.00 ±0.25 0.236 | 0.18 | 2.00 | 29 | 46 | 60 | 83 |
| 2643000701 | 3.50 ±0.20 0.138 | 1.30 ±0.10 0.051 | 12.70 ±0.35 0.500 | 0.38 | 2.00 | 60 | 89 | 125 | 148 |
| 2643200101 | 5.10 ±0.25 0.200 | 1.45 +0.25 0.062 | 3.40 -0.45 0.125 | 0.19 | 1.50 | 19 | 30 | 41 | 61 |
| 2643022401 | 5.10 ±0.25 0.200 | 1.45 +0.25 0.062 | 6.35 ±0.25 0.250 | 0.38 | 1.50 | 36 | 55 | 82 | 97 |
| 2643021801 | 5.10 ±0.25 0.200 | 1.45 +0.25 0.062 | 11.10 ±0.35 0.437 | 0.67 | 1.50 | 62 | 96 | 131 | 151 |
| 2643001501 | 3.50 ±0.20 0.138 | 1.60 ±0.10 0.063 | 3.25 ±0.25 0.128 | 0.10 | 1.70 | 13 | 21 | 35 | 50 |
| 2643025601 | 3.50 ±0.20 0.138 | 1.60 ±0.10 0.063 | 6.00 ±0.25 0.236 | 0.18 | 1.70 | 23 | 38 | 55 | 70 |
| 2643023201 | 2.85 ±0.10 0.112 | 1.65 ±0.15 0.068 | 3.75 ±0.25 0.147 | 0.06 | 1.80 | 10 | 15 | 30 | 43 |
| 2643013801 | 3.50 ±0.20 0.138 | 1.65 +0.25 0.070 | 4.05 ±0.25 0.160 | 0.12 | 1.60 | 14 | 24 | 38 | 52 |
| 2643001601 | 3.55 ±0.15 0.140 | 1.65 +0.25 0.070 | 3.30 -0.40 0.122 | 0.09 | 1.60 | 11 | 19 | 30 | 46 |
| 2643001301 | 3.55 ±0.15 0.140 | 1.65 +0.25 0.070 | 5.95 ±0.25 0.234 | 0.18 | 1.60 | 21 | 31 | 48 | 65 |
| 2643005701 | 5.10 ±0.25 0.200 | 2.30 ±0.20 0.090 | 12.70 ±0.35 0.500 | 0.81 | 1.20 | 49 | 78 | 120 | 123 |
| 2643000801 | 7.50 ±0.20 0.296 | 2.25 +0.25 0.094 | 7.55 ±0.25 0.297 | 1.00 | 1.00 | 42 | 63 | 92 | 109 |
| 2643300101 | 7.60 ±0.25 0.300 | 2.25 +0.25 0.094 | 15.10 ±0.75 0.595 | 2.10 | 1.00 | 83 | 115 | 200 | 195 |
| 2643003201 | 5.60 -0.50 0.210 | 2.65 ±0.25 0.105 | 12.70 ±0.50 0.500 | 0.87 | 1.10 | 42 | 63 | 88 | 110 |
| 2643250402 | 6.35 ±0.15 0.250 | 2.95 +0.45 0.125 | 12.70 ±0.50 0.500 | 1.20 | 0.91 | 43 | 69 | 102 | 111 |
| 2643250302 | 6.35 ±0.15 0.250 | 2.95 +0.45 0.125 | 15.90 ±0.50 0.625 | 1.50 | 0.91 | 53 | 85 | 122 | 132 |
| 2643250202 | 6.35 ±0.15 0.250 | 2.95 +0.45 0.125 | 25.40 ±0.75 1.000 | 2.50 | 0.91 | 83 | 135 | 200 | 196 |
| 2643375102 | 9.50 ±0.25 0.375 | 4.50 +0.75 0.192 | 6.35 ±0.35 0.250 | 1.40 | 0.60 | 21 | 35 | 50 | 66 |
| 2643375002 | 9.50 ±0.25 0.375 | 4.50 +0.75 0.192 | 14.50 ±0.60 0.570 | 3.10 | 0.60 | 47 | 78 | 115 | 119 |
| 2643006302 | 9.50 ±0.25 0.375 | 4.75 +0.30 0.193 | 10.40 ±0.25 0.410 | 2.20 | 0.60 | 34 | 53 | 80 | 92 |
| 2643023402 | 9.50 ±0.25 0.375 | 4.75 +0.30 0.193 | 15.90 ±0.45 0.625 | 3.40 | 0.60 | 51 | 83 | 120 | 127 |

Fair-Rite Products Corp. PO Box 288, One Commercial Row, Wallkill, NY 12589-0288

Phone: (888) FAIR RITE / (845) 895-2055 • Fax: (888) FERRITE / (845) 895-2629 • Web: www.fair-rite.com
 (888) 324-7748 (888) 337-7483 E -mail: ferrites@fair-rite.com

EMI Suppression Beads



Quick Link: www.fair-rite.com/esb

Listed by frequency range and in ascending order of "B" dimension.

Broadband Frequencies 25-300 MHz (43 material)

| Part Number | A | B | C | Wt. (g) | H (Oe) | Impedance (Ω) | | | |
|-------------|--------------------------|--------------------------|---------------------------|---------|--------|------------------------|---------------------|----------------------|---------|
| | | | | | | 10 MHz | 25 MHz ⁺ | 100 MHz ⁺ | 250 MHz |
| 2643023002 | 9.50 \pm 0.25 0.375 | 4.75 +0.30 0.193 | 19.05 \pm 0.70 0.750 | 4.10 | 0.60 | 60 | 100 | 145 | 148 |
| 2643002402 | 9.65 \pm 0.25 0.380 | 5.00 \pm 0.20 0.197 | 5.05 -0.45 0.190 | 1.10 | 0.59 | 16 | 26 | 43 | 56 |
| 2643012702 | 9.65 \pm 0.25 0.380 | 6.35 \pm 0.15 0.250 | 7.35 \pm 0.25 0.290 | 1.30 | 0.51 | 15 | 24 | 38 | 55 |

Higher Frequencies 250-1000 MHz (61 material)

| Part Number | A | B | C | Wt. (g) | H (Oe) | Impedance (Ω) | | | |
|-------------|--------------------------|--------------------------|---------------------------|---------|--------|------------------------|----------------------|----------------------|----------|
| | | | | | | 100 MHz | 250 MHz ⁺ | 500 MHz ⁺ | 1000 MHz |
| 2661000101 | 3.50 \pm 0.20 0.138 | 1.30 \pm 0.10 0.051 | 3.25 \pm 0.25 0.128 | 0.10 | 2.00 | 30 | 45 | 62 | 95 |
| 2661000301 | 3.50 \pm 0.20 0.138 | 1.30 \pm 0.10 0.051 | 6.00 \pm 0.25 0.236 | 0.18 | 2.00 | 54 | 82 | 103 | 120 |
| 2661000701 | 3.50 \pm 0.20 0.138 | 1.30 \pm 0.10 0.051 | 12.70 \pm 0.35 0.500 | 0.38 | 2.00 | 120 | 158 | 178 | 185 |
| 2661022401 | 5.10 \pm 0.25 0.200 | 1.45 +0.25 0.062 | 6.35 \pm 0.25 0.250 | 0.38 | 1.50 | 58 | 82 | 103 | 138 |
| 2661021801 | 5.10 \pm 0.25 0.200 | 1.45 +0.25 0.062 | 11.10 \pm 0.35 0.437 | 0.67 | 1.50 | 102 | 141 | 167 | 185 |
| 2661023801 | 5.10 \pm 0.25 0.200 | 1.45 +0.25 0.062 | 22.85 \pm 0.75 0.900 | 1.40 | 1.50 | 210 | 286 | 325 | 350 |
| 2661000801 | 7.50 \pm 0.25 0.296 | 2.25 +0.25 0.094 | 7.55 \pm 0.25 0.297 | 1.00 | 1.00 | 75 | 103 | 120 | 143 |
| 2661250402 | 6.35 \pm 0.15 0.250 | 2.95 +0.45 0.125 | 12.70 \pm 0.50 0.500 | 1.20 | 0.91 | 85 | 115 | 135 | 155 |
| 2661375102 | 9.50 \pm 0.25 0.375 | 4.50 +0.75 0.192 | 6.35 \pm 0.35 0.250 | 2.50 | 0.60 | 42 | 63 | 83 | 117 |

Fair-Rite Products Corp. PO Box 288, One Commercial Row, Walkill, NY 12589-0288

Phone: (888) FAIR RITE / (845) 895-2055 • Fax: (888) FERRITE / (845) 895-2629 • Web: www.fair-rite.com
 (888) 324-7748 (888) 337-7483 E -mail: ferrites@fair-rite.com