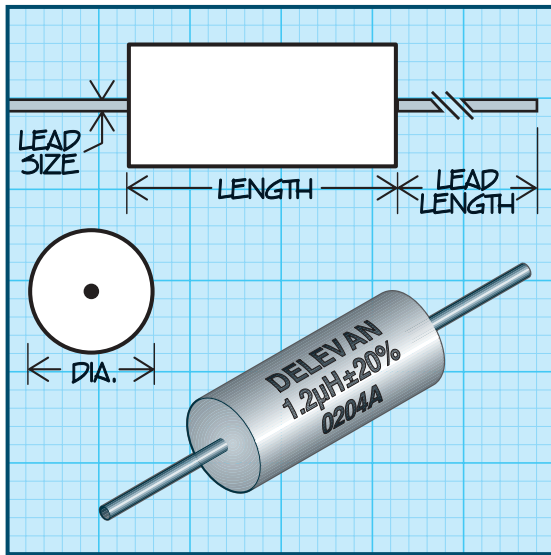


# Series 1944 & 1945

## Molded Unshielded RF Coils



**Test Methods** MIL-PRF-15305 test methods, only.  
MS21389-01 to MS21389-17, reference - 1944 Series

MS21390-01 to MS21390-39, reference - 1945 Series

### Physical Parameters

|             | Inches         | Millimeters    |
|-------------|----------------|----------------|
| Length      | 0.420 to 0.447 | 10.67 to 11.35 |
| Diameter    | 0.168 to 0.193 | 4.27 to 4.90   |
| Lead Size   |                |                |
| AWG #22 TCW | 0.023 to 0.027 | 0.584 to 0.686 |
| Lead Length | 1.30 Min.      | 33.02 Min.     |

**Current Rating at 90°C Ambient** 35°C Rise

**Operating Temperature** -55°C to +125°C

### Maximum Power Dissipation at 90°C

Series 1944: 0.385 W

Series 1945: 0.330 W

**Packaging** Tape & reel: 12" reel, 2500 pieces max.;  
14" reel, 3000 pieces max. For additional packaging options, see page 146.

**Made in the U.S.A.**

| MS21389 (reference) - SERIES 1944 PHENOLIC CORE |                   |                 |           |                                 |                        |           |                   |                              |                             |
|-------------------------------------------------|-------------------|-----------------|-----------|---------------------------------|------------------------|-----------|-------------------|------------------------------|-----------------------------|
| PART NUMBER                                     | MIL DASH # (Ref.) | INDUCTANCE (µH) | TOLERANCE | INDUCTANCE TEST FREQUENCY (MHz) | Q-TEST FREQUENCY (MHz) | Q MINIMUM | SRF MINIMUM (MHz) | DC RESISTANCE MAXIMUM (OHMS) | CURRENT RATING MAXIMUM (mA) |
| 1944-01M                                        | 1                 | 0.10 ± 20%      | 25        | 50                              | 75                     | 400       | 0.020             | 4000                         |                             |
| 1944-02M                                        | 2                 | 0.12 ± 20%      | 25        | 50                              | 75                     | 400       | 0.025             | 3500                         |                             |
| 1944-03M                                        | 3                 | 0.15 ± 20%      | 25        | 50                              | 75                     | 400       | 0.030             | 3000                         |                             |
| 1944-04M                                        | 4                 | 0.18 ± 20%      | 25        | 50                              | 65                     | 400       | 0.030             | 3000                         |                             |
| 1944-05M                                        | 5                 | 0.22 ± 20%      | 25        | 50                              | 65                     | 400       | 0.030             | 3000                         |                             |
| 1944-06M                                        | 6                 | 0.27 ± 20%      | 25        | 45                              | 65                     | 376       | 0.040             | 2700                         |                             |
| 1944-07M                                        | 7                 | 0.33 ± 20%      | 25        | 40                              | 65                     | 352       | 0.045             | 2500                         |                             |
| 1944-08M                                        | 8                 | 0.39 ± 20%      | 25        | 40                              | 60                     | 320       | 0.070             | 2000                         |                             |
| 1944-09M                                        | 9                 | 0.47 ± 20%      | 25        | 25                              | 55                     | 288       | 0.070             | 2000                         |                             |
| 1944-10M                                        | 10                | 0.56 ± 20%      | 25        | 25                              | 50                     | 264       | 0.100             | 1700                         |                             |
| 1944-11M                                        | 11                | 0.68 ± 20%      | 25        | 25                              | 50                     | 240       | 0.120             | 1500                         |                             |
| 1944-12M                                        | 12                | 0.82 ± 20%      | 25        | 25                              | 45                     | 220       | 0.160             | 1300                         |                             |
| 1944-13M                                        | 13                | 1.00 ± 20%      | 25        | 20                              | 45                     | 200       | 0.230             | 1100                         |                             |
| 1944-14M                                        | 14                | 1.20 ± 20%      | 7.9       | 20                              | 45                     | 176       | 0.280             | 1000                         |                             |
| 1944-15K                                        | 15                | 1.50 ± 10%      | 7.9       | 15                              | 45                     | 160       | 0.380             | 850                          |                             |
| 1944-16K                                        | 16                | 1.80 ± 10%      | 7.9       | 15                              | 45                     | 144       | 0.540             | 720                          |                             |
| 1944-17K                                        | 17                | 2.20 ± 10%      | 7.9       | 15                              | 45                     | 132       | 0.750             | 610                          |                             |
| MS21390 (reference) - SERIES 1945 IRON CORE     |                   |                 |           |                                 |                        |           |                   |                              |                             |
| 1945-01K                                        | 1                 | 2.70 ± 10%      | 7.9       | 10                              | 55                     | 88        | 0.11              | 1600                         |                             |
| 1945-02K                                        | 2                 | 3.30 ± 10%      | 7.9       | 10                              | 55                     | 80        | 0.14              | 1400                         |                             |
| 1945-03K                                        | 3                 | 3.90 ± 10%      | 7.9       | 10                              | 60                     | 76        | 0.19              | 1200                         |                             |
| 1945-04K                                        | 4                 | 4.70 ± 10%      | 7.9       | 7.9                             | 70                     | 72        | 0.28              | 1000                         |                             |
| 1945-05K                                        | 5                 | 5.60 ± 10%      | 7.9       | 7.9                             | 65                     | 64        | 0.34              | 900                          |                             |
| 1945-06K                                        | 6                 | 6.80 ± 10%      | 7.9       | 7.9                             | 65                     | 56        | 0.43              | 800                          |                             |
| 1945-07K                                        | 7                 | 8.20 ± 10%      | 7.9       | 7.9                             | 60                     | 52        | 0.56              | 720                          |                             |
| 1945-08K                                        | 8                 | 10.0 ± 10%      | 7.9       | 5.0                             | 60                     | 48        | 0.67              | 650                          |                             |
| 1945-09K                                        | 9                 | 12.0 ± 10%      | 2.5       | 5.0                             | 65                     | 42.4      | 0.81              | 590                          |                             |
| 1945-10K                                        | 10                | 15.0 ± 10%      | 2.5       | 2.5                             | 80                     | 37.6      | 1.15              | 500                          |                             |
| 1945-11K                                        | 11                | 18.0 ± 10%      | 2.5       | 2.5                             | 75                     | 34.4      | 1.40              | 460                          |                             |
| 1945-12K                                        | 12                | 22.0 ± 10%      | 2.5       | 2.5                             | 75                     | 32.0      | 1.60              | 430                          |                             |
| 1945-13J                                        | 13                | 27.0 ± 5%       | 2.5       | 2.5                             | 75                     | 28.8      | 2.30              | 360                          |                             |
| 1945-14J                                        | 14                | 33.0 ± 5%       | 2.5       | 2.5                             | 85                     | 25.6      | 3.30              | 300                          |                             |
| 1945-15J                                        | 15                | 39.0 ± 5%       | 2.5       | 2.5                             | 80                     | 20.8      | 3.32              | 290                          |                             |
| 1945-16J                                        | 16                | 47.0 ± 5%       | 2.5       | 2.5                             | 80                     | 17.6      | 3.70              | 275                          |                             |
| 1945-17J                                        | 17                | 56.0 ± 5%       | 2.5       | 2.5                             | 75                     | 15.2      | 3.99              | 265                          |                             |
| 1945-18J                                        | 18                | 68.0 ± 5%       | 2.5       | 2.5                             | 75                     | 12.8      | 4.48              | 250                          |                             |
| 1945-19J                                        | 19                | 82.0 ± 5%       | 2.5       | 2.5                             | 75                     | 10.4      | 5.07              | 235                          |                             |
| 1945-20J                                        | 20                | 100 ± 5%        | 2.5       | 1.5                             | 75                     | 8.00      | 5.78              | 220                          |                             |
| 1945-21J                                        | 21                | 120 ± 5%        | 0.79      | 0.79                            | 65                     | 5.76      | 5.00              | 170                          |                             |
| 1945-22J                                        | 22                | 150 ± 5%        | 0.79      | 0.79                            | 65                     | 5.36      | 5.80              | 164                          |                             |
| 1945-23J                                        | 23                | 180 ± 5%        | 0.79      | 0.79                            | 65                     | 5.04      | 6.60              | 158                          |                             |
| 1945-24J                                        | 24                | 220 ± 5%        | 0.79      | 0.79                            | 65                     | 4.72      | 7.40              | 155                          |                             |
| 1945-25J                                        | 25                | 270 ± 5%        | 0.79      | 0.79                            | 65                     | 4.48      | 8.00              | 150                          |                             |
| 1945-26J                                        | 26                | 300 ± 5%        | 0.79      | 0.79                            | 65                     | 4.24      | 8.60              | 145                          |                             |
| 1945-27J                                        | 27                | 330 ± 5%        | 0.79      | 0.79                            | 65                     | 4.00      | 8.90              | 142                          |                             |
| 1945-28J                                        | 28                | 360 ± 5%        | 0.79      | 0.79                            | 65                     | 3.76      | 9.60              | 137                          |                             |
| 1945-29J                                        | 29                | 390 ± 5%        | 0.79      | 0.79                            | 65                     | 3.60      | 9.90              | 135                          |                             |
| 1945-30J                                        | 30                | 430 ± 5%        | 0.79      | 0.79                            | 65                     | 3.44      | 10.4              | 131                          |                             |
| 1945-31J                                        | 31                | 470 ± 5%        | 0.79      | 0.79                            | 65                     | 3.20      | 10.9              | 128                          |                             |
| 1945-32J                                        | 32                | 510 ± 5%        | 0.79      | 0.79                            | 65                     | 3.04      | 11.6              | 124                          |                             |
| 1945-33J                                        | 33                | 560 ± 5%        | 0.79      | 0.79                            | 60                     | 2.88      | 11.8              | 123                          |                             |
| 1945-34J                                        | 34                | 620 ± 5%        | 0.79      | 0.79                            | 60                     | 2.80      | 12.5              | 120                          |                             |
| 1945-35J                                        | 35                | 680 ± 5%        | 0.79      | 0.79                            | 60                     | 2.72      | 13.5              | 115                          |                             |
| 1945-36J                                        | 36                | 750 ± 5%        | 0.79      | 0.79                            | 60                     | 2.64      | 14.0              | 113                          |                             |
| 1945-37J                                        | 37                | 820 ± 5%        | 0.79      | 0.79                            | 60                     | 2.48      | 15.0              | 110                          |                             |
| 1945-38J                                        | 38                | 910 ± 5%        | 0.79      | 0.79                            | 60                     | 2.40      | 15.5              | 107                          |                             |
| 1945-39J                                        | 39                | 1000 ± 5%       | 0.79      | 0.79                            | 60                     | 2.24      | 16.5              | 104                          |                             |

Optional Tolerances: J = 5% H = 3% G = 2% F = 1%