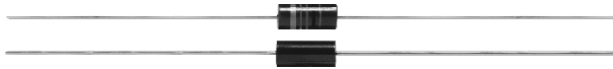


Inductors, Commercial, Molded, Axial Leaded



ELECTRICAL SPECIFICATIONS

Inductance Tolerance: $\pm 10\%$ on Q-meter for 0.10 μH to 22 μH , $\pm 5\%$ 1000 cps bridge for 27 μH to 100 μH , $\pm 5\%$ on Q-meter for 120 μH to 1000 μH

Note

- L and Q are not always tested at the same frequency, inductance values that are tested on Q-meter, are tested at standard test frequencies

Dielectric Strength: 700 V_{RMS} at sea level

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

Self-Resonant Frequency: Minimum SRF measured with full length leads on grid-dip meter

Q: Measured on Q-meter

DENSITY SPECIFICATIONS

Weight: 0.9 g maximum

FEATURES

- Classification is grade 1, class B
- Inductance range is 0.10 μH to 1000 μH
- Proven reliability molded inductors
- Compliant to RoHS directive 2002/95/EC



RoHS
COMPLIANT

MECHANICAL SPECIFICATIONS

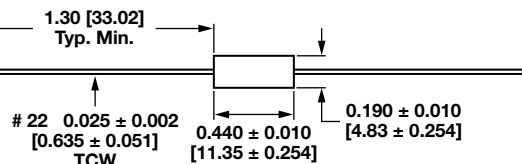
Terminal Strength: Meets 5 lb pull per MIL-PRF-15305 (latest revision)

ENVIRONMENTAL SPECIFICATIONS

Moisture and Shock Resistance: Meets requirements of MIL-PRF-15305, grade 1, class B

Vibration: High frequency, 10 Hz to 2000 Hz at 20 g $\pm 10\%$ maximum for 12 logarithmic swings, each of 20 min duration repeated for each of three mutually perpendicular planes

DIMENSIONS in inches [millimeters]



STANDARD ELECTRICAL SPECIFICATIONS

| MODEL ⁽¹⁾ | IND. (μH) | TOL. (%) | Q MIN. | TEST FREQUENCY (MHz) | SRF MIN. (MHz) | DCR MAX. (Ω) | RATED DC CURRENT (mA) | PHENOLIC CORE |
|----------------------|------------------------|----------|--------|----------------------|----------------|-----------------------|-----------------------|---------------|
| IM-6RFCS-40 | 0.10 | ± 10 | 75 | 50 | 400 | 0.02 | 4000 | |
| IM-6RFCS-40 | 0.12 | ± 10 | 75 | 50 | 400 | 0.025 | 3500 | |
| IM-6RFCS-40 | 0.15 | ± 10 | 75 | 50 | 400 | 0.03 | 3000 | |
| IM-6RFCS-40 | 0.18 | ± 10 | 75 | 50 | 400 | 0.03 | 3000 | |
| IM-6RFCS-40 | 0.22 | ± 10 | 75 | 50 | 400 | 0.03 | 3000 | |
| IM-6RFCS-40 | 0.27 | ± 10 | 70 | 45 | 376 | 0.04 | 2700 | |
| IM-6RFCS-40 | 0.33 | ± 10 | 70 | 40 | 352 | 0.05 | 2500 | |
| IM-6RFCS-40 | 0.39 | ± 10 | 65 | 40 | 320 | 0.08 | 2000 | |
| IM-6RFCS-40 | 0.47 | ± 10 | 60 | 25 | 288 | 0.08 | 2000 | |
| IM-6RFCS-40 | 0.56 | ± 10 | 55 | 25 | 264 | 0.10 | 1700 | |
| IM-6RFCS-40 | 0.68 | ± 10 | 55 | 25 | 240 | 0.12 | 1500 | |
| IM-6RFCS-40 | 0.82 | ± 10 | 50 | 25 | 220 | 0.18 | 1300 | |
| IM-6RFCS-40 | 1.0 | ± 10 | 50 | 20 | 200 | 0.24 | 1100 | |
| IM-6RFCS-40 | 1.2 | ± 10 | 45 | 20 | 176 | 0.35 | 1000 | |
| IM-6RFCS-40 | 1.5 | ± 10 | 45 | 15 | 160 | 0.43 | 850 | |
| IM-6RFCS-40 | 1.8 | ± 10 | 45 | 15 | 144 | 0.65 | 720 | |
| IM-6RFCS-40 | 2.2 | ± 10 | 45 | 15 | 132 | 0.80 | 610 | |

Note

⁽¹⁾ Model electricals and tolerances shown

| STANDARD ELECTRICAL SPECIFICATIONS | | | | | | | |
|------------------------------------|-----------|----------|--------|----------------------|----------------|--------------|-----------------------|
| MODEL ⁽¹⁾ | IND. (μH) | TOL. (%) | Q MIN. | TEST FREQUENCY (MHz) | SRF MIN. (MHz) | DCR MAX. (Ω) | RATED DC CURRENT (mA) |
| IM-6RFCS-40 | 2.7 | ± 10 | 55 | 10 | 88 | 0.12 | 1600 |
| IM-6RFCS-40 | 3.3 | ± 10 | 55 | 10 | 80 | 0.15 | 1400 |
| IM-6RFCS-40 | 3.9 | ± 10 | 60 | 10 | 76 | 0.23 | 1200 |
| IM-6RFCS-40 | 4.7 | ± 10 | 70 | 7.9 | 72 | 0.30 | 1000 |
| IM-6RFCS-40 | 5.6 | ± 10 | 65 | 7.9 | 64 | 0.45 | 900 |
| IM-6RFCS-40 | 6.8 | ± 10 | 65 | 7.9 | 56 | 0.55 | 800 |
| IM-6RFCS-40 | 8.2 | ± 10 | 60 | 7.9 | 52 | 0.65 | 720 |
| IM-6RFCS-40 | 10 | ± 10 | 60 | 5.0 | 48 | 0.73 | 650 |
| IM-6RFCS-40 | 12 | ± 10 | 65 | 5.0 | 42 | 1.1 | 590 |
| IM-6RFCS-40 | 15 | ± 10 | 80 | 2.5 | 38 | 1.4 | 500 |
| IM-6RFCS-40 | 18 | ± 10 | 75 | 2.5 | 34 | 1.6 | 460 |
| IM-6RFCS-40 | 22 | ± 10 | 75 | 2.5 | 32 | 1.8 | 430 |
| IM-6RFCS-40 | 27 | ± 5 | 75 | 2.5 | 29 | 2.7 | 360 |
| IM-6RFCS-40 | 33 | ± 5 | 85 | 2.5 | 26 | 3.5 | 300 |
| IM-6RFCS-40 | 39 | ± 5 | 80 | 2.5 | 21 | 3.8 | 290 |
| IM-6RFCS-40 | 47 | ± 5 | 80 | 2.5 | 18 | 4.0 | 275 |
| IM-6RFCS-40 | 56 | ± 5 | 75 | 2.5 | 15 | 4.4 | 265 |
| IM-6RFCS-40 | 68 | ± 5 | 75 | 2.5 | 13 | 4.7 | 250 |
| IM-6RFCS-40 | 82 | ± 5 | 75 | 2.5 | 10 | 5.3 | 235 |
| IM-6RFCS-40 | 100 | ± 5 | 75 | 1.5 | 8.0 | 6.0 | 220 |
| IM-6RFCS-40 | 120 | ± 5 | 65 | 0.79 | 5.7 | 5.0 | 170 |
| IM-6RFCS-40 | 150 | ± 5 | 65 | 0.79 | 5.4 | 5.8 | 164 |
| IM-6RFCS-40 | 180 | ± 5 | 65 | 0.79 | 5.0 | 6.6 | 158 |
| IM-6RFCS-40 | 220 | ± 5 | 65 | 0.79 | 4.7 | 7.4 | 155 |
| IM-6RFCS-40 | 270 | ± 5 | 65 | 0.79 | 4.5 | 8.0 | 150 |
| IM-6RFCS-40 | 300 | ± 5 | 65 | 0.79 | 4.2 | 8.6 | 145 |
| IM-6RFCS-40 | 330 | ± 5 | 65 | 0.79 | 4.0 | 8.9 | 142 |
| IM-6RFCS-40 | 360 | ± 5 | 65 | 0.79 | 3.8 | 9.6 | 137 |
| IM-6RFCS-40 | 390 | ± 5 | 65 | 0.79 | 3.6 | 9.9 | 135 |
| IM-6RFCS-40 | 430 | ± 5 | 65 | 0.79 | 3.4 | 10.4 | 131 |
| IM-6RFCS-40 | 470 | ± 5 | 65 | 0.79 | 3.2 | 10.9 | 128 |
| IM-6RFCS-40 | 510 | ± 5 | 65 | 0.79 | 3.0 | 11.6 | 124 |
| IM-6RFCS-40 | 560 | ± 5 | 65 | 0.79 | 2.9 | 11.8 | 123 |
| IM-6RFCS-40 | 620 | ± 5 | 60 | 0.79 | 2.8 | 12.5 | 120 |
| IM-6RFCS-40 | 680 | ± 5 | 60 | 0.79 | 2.7 | 13.5 | 115 |
| IM-6RFCS-40 | 750 | ± 5 | 60 | 0.79 | 2.6 | 14.0 | 113 |
| IM-6RFCS-40 | 820 | ± 5 | 60 | 0.79 | 2.5 | 15.0 | 110 |
| IM-6RFCS-40 | 910 | ± 5 | 60 | 0.79 | 2.4 | 15.5 | 107 |
| IM-6RFCS-40 | 1000 | ± 5 | 60 | 0.79 | 2.2 | 16.5 | 104 |

IRON CORE

Note

⁽¹⁾ Model electricals and tolerances shown

| MARKING |
|---|
| - Color coded per MIL-PRF-15305 (latest revision) |

| ORDERING INFORMATION | | | | |
|----------------------|------------------|----------------------|--------------|-------------------------------|
| IM-6RFCS-40 | 10 μH | ± 10 % | ER | e2 |
| MODEL | INDUCTANCE VALUE | INDUCTANCE TOLERANCE | PACKAGE CODE | JEDEC LEAD (Pb)-FREE STANDARD |

| GLOBAL PART NUMBER | | | | | | | | | | | | | | | |
|--------------------|---|---|---|---|---|---|--------------|---|------------------|---|---|----------------------|--------|---|---|
| I | M | 0 | 6 | R | F | C | S | E | R | 1 | 0 | 0 | K | 4 | 0 |
| MODEL | | | | | | | PACKAGE CODE | | INDUCTANCE VALUE | | | INDUCTANCE TOLERANCE | SERIES | | |



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