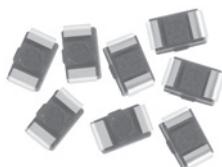


Inductors

High Frequency, Surface Mount, Molded



FEATURES

- High self-resonant frequency values.
- High Q values at higher frequencies.
- Molded construction provides superior strength and moisture resistance.
- Wirewound construction.
- Tape and reel packaging for automatic handling, 3,000/reel, EIA481.
- Compatible with vapor phase and infrared reflow soldering.

STANDARD ELECTRICAL SPECIFICATIONS

| IND. (nH) | TOL. | TEST FREQ. L & Q (MHz) | Q MIN. | Q TYPICAL | | | SELF- RESONANT FREQ. MIN. (MHz) | DCR ± 30% (Ohms) | RATED DC CURRENT (mA) |
|--------------|--------------|---------------------------------|-----------|--------------|------------|------------|--|------------------------|--------------------------------|
| | | | | 100 MHz | 800 MHz | 1.8 GHz | | | |
| 3.9 | ± 20% | 100 | 6 | 20 | 58 | 90 | 6000 | 0.08 | 540 |
| 4.7 | ± 20% | 100 | 6 | 18 | 60 | 100 | 6000 | 0.08 | 540 |
| 5.6 | ± 20% | 100 | 6 | 20 | 60 | 105 | 5500 | 0.10 | 540 |
| 6.8 | ± 10%, ± 20% | 100 | 8 | 20 | 60 | 100 | 5500 | 0.12 | 540 |
| 8.2 | ± 10%, ± 20% | 100 | 8 | 22 | 65 | 110 | 4700 | 0.13 | 540 |
| 10 | ± 10% | 100 | 10 | 22 | 65 | 110 | 3300 | 0.14 | 540 |
| 12 | ± 10% | 100 | 10 | 22 | 65 | 105 | 3300 | 0.18 | 535 |
| 15 | ± 10% | 100 | 12 | 23 | 70 | 100 | 3000 | 0.18 | 520 |
| 18 | ± 10% | 100 | 12 | 25 | 75 | 95 | 3000 | 0.22 | 480 |
| 22 | ± 10% | 100 | 15 | 25 | 75 | 80 | 2600 | 0.22 | 465 |
| 27 | ± 10% | 100 | 15 | 25 | 75 | — | 2500 | 0.26 | 455 |
| 33 | ± 5%, ± 10% | 100 | 15 | 28 | 80 | — | 2050 | 0.30 | 395 |
| 39 | ± 5%, ± 10% | 100 | 15 | 28 | 70 | — | 2000 | 0.31 | 390 |
| 47 | ± 5%, ± 10% | 100 | 15 | 28 | 70 | — | 1650 | 0.35 | 385 |
| 56 | ± 5%, ± 10% | 100 | 15 | 28 | 60 | — | 1550 | 0.39 | 360 |
| 68 | ± 5%, ± 10% | 100 | 15 | 28 | — | — | 1450 | 0.44 | 340 |
| 82 | ± 5%, ± 10% | 100 | 15 | 28 | — | — | 1100 | 0.48 | 330 |
| 100 | ± 5%, ± 10% | 25.2 | 8 | 25 | — | — | 800 | 0.66 | 285 |
| 120 | ± 5%, ± 10% | 25.2 | 8 | 24 | — | — | 600 | 0.76 | 275 |
| 150 | ± 5%, ± 10% | 25.2 | 10 | 25 | — | — | 600 | 1.13 | 230 |
| 180 | ± 5%, ± 10% | 25.2 | 10 | 25 | — | — | 600 | 1.24 | 195 |
| 220 | ± 5%, ± 10% | 25.2 | 10 | 25 | — | — | 500 | 1.41 | 170 |
| 270 | ± 5%, ± 10% | 25.2 | 10 | 25 | — | — | 300 | 1.50 | 165 |
| 330 | ± 5%, ± 10% | 25.2 | 10 | 20 | — | — | 200 | 1.66 | 160 |
| 390 | ± 5%, ± 10% | 25.2 | 10 | 20 | — | — | 150 | 1.82 | 150 |
| 470 | ± 5%, ± 10% | 25.2 | 10 | 18 | — | — | 150 | 1.97 | 145 |
| 560 | ± 5%, ± 10% | 25.2 | 10 | 15 | — | — | 100 | 2.07 | 140 |
| 680 | ± 5%, ± 10% | 25.2 | 10 | — | — | — | 100 | 2.32 | 130 |
| 820 | ± 5%, ± 10% | 25.2 | 10 | — | — | — | 80 | 2.60 | 125 |
| 1000 | ± 5%, ± 10% | 7.96 | 8 | — | — | — | 80 | 2.98 | 120 |

NOTE: Tighter tolerance product may be substituted based on availability.

ELECTRICAL SPECIFICATIONS

Inductance Range: 3.9nH to 1,000nH.

Inductance Tolerance: ± 20% for 3.9nH to 8.2nH.

± 10% for 6.8nH to 1,000nH.

± 5% for 33nH to 1,000nH.

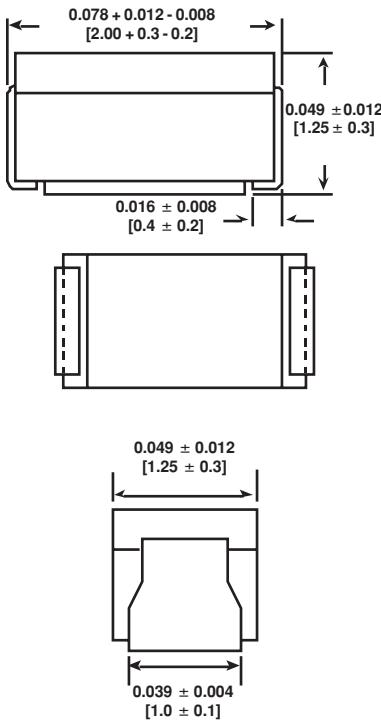
Temperature Range: -40°C to +105°C (no load). -40°C to +85°C (at full rated current).

Core Material: Non-magnetic.

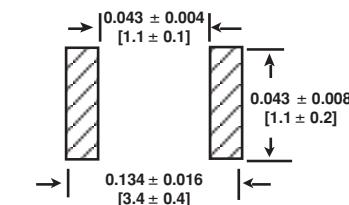
TEST EQUIPMENT

- Inductance and Q measured on HP4191A.
- SRF measured on HP8753B.

DIMENSIONS in inches [millimeters]



Recommended Pad Layout



ORDERING INFORMATION

| | | |
|----------|------------------|----------------------|
| IMC-0805 | 10nH | ± 10% |
| MODEL | INDUCTANCE VALUE | INDUCTANCE TOLERANCE |

SAP PART NUMBERING GUIDELINES (INTERNAL)

| | | | | | | | | | | | | |
|---|---|---|------|---|---|---|--------------|---|------------------|---|---|---|
| I | M | C | 0 | 8 | 0 | 5 | R | K | 1 | 0 | N | K |
| PRODUCT FAMILY | | | SIZE | | | | PACKAGE CODE | | INDUCTANCE VALUE | | | |
| See the end of this data book for conversion tables | | | | | | | | | | | | |