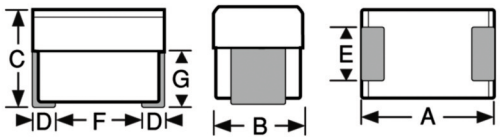
# SERIES MIL1812R MIL1812

## Unshielded Surface Mount Inductors

RF Inductors



Actual Size




**Military QPL Approvals**
M83446/39
* Suffix F: Tin/Lead Termination
* Suffix P: Tin Termination

**Physical Parameters**

| | Inches | Millimeters |
|---|---|---|
| A | 0.166 to 0.190 | 4.22 to 4.83 |
| B | 0.118 to 0.134 | 3.00 to 3.40 |
| C | 0.118 to 0.134 | 3.00 to 3.40 |
| D | 0.015 Min. | 0.38 Min. |
| E | 0.054 to 0.078 | 1.37 to 1.98 |
| F | 0.118 (Ref. only) | 3.00 (Ref. only) |
| G | 0.066 (Ref. only) | 1.68 (Ref. only) |

Dimensions "A" and "C" are over terminals

**Operating Temperature Range** –55°C to +125°C

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

**Maximum Power Dissipation at 90°C**
Iron and Ferrite: 0.278 W
Phenolic: 0.210 W

****†Note** Self Resonant Frequency (SRF) values are calculated and for reference only.

**Packaging** Tape & reel (12mm): 7" reel, 650 pieces max.; 13" reel, 2500 pieces max.

***Termination Finish Options** (Part & Callout)
MIL1812-101K = M83446/30F (Tin/Lead)
MIL1812R-101K = M83446/13P (Lead free)

**Marking** API/SMD; inductance with units and tolerance; date code (YYWWL) followed by an M. Note: An R before the date code indicates a RoHS component.
Example: MIL1812-101K
API/SMD
0.10uH±10%
0808A M

***Parts listed above are QPL/MIL qualified***

*Complete part # must include series # PLUS the dash #

For surface finish information,
refer to www.delevanfinishes.com

| DASH NUMBER* | MIL DASH # | INDUCTANCE (µH) | TOLERANCE | Q MINIMUM | TEST FREQUENCY (MHz) | SRF MINIMUM (MHz) | DC RESISTANCE MAXIMUM (OHMS) | CURRENT RATING MAXIMUM (mA) |
|---|---|---|---|---|---|---|---|---|
| **M83446/39 PHENOLIC CORE** | | | | | | | | |
| -100M | -01* | 0.010 | ±20% | 40 | 50 | 1000**† | 0.10 | 1230 |
| -120M | -02* | 0.012 | ±20% | 40 | 50 | 1000**† | 0.10 | 1230 |
| -150M | -03* | 0.015 | ±20% | 40 | 50 | 1000**† | 0.10 | 1230 |
| -180M | -04* | 0.018 | ±20% | 40 | 50 | 1000**† | 0.10 | 1230 |
| -220M | -05* | 0.022 | ±20% | 40 | 50 | 1000**† | 0.10 | 1230 |
| -270M | -06* | 0.027 | ±20% | 40 | 50 | 1000**† | 0.15 | 1000 |
| -330M | -07* | 0.033 | ±20% | 40 | 50 | 1000**† | 0.15 | 1000 |
| -390M | -08* | 0.039 | ±20% | 30 | 50 | 1000**† | 0.20 | 870 |
| -470M | -09* | 0.047 | ±20% | 30 | 50 | 1000**† | 0.20 | 870 |
| -560M | -10* | 0.056 | ±20% | 30 | 50 | 850**† | 0.25 | 770 |
| -680M | -11* | 0.068 | ±20% | 25 | 50 | 750**† | 0.25 | 770 |
| -820M | -12* | 0.082 | ±20% | 25 | 50 | 750**† | 0.25 | 700 |
| **M83446/39 IRON CORE** | | | | | | | | |
| -101K | -13* | 0.10 | ±10% | 30 | 25 | 650**† | 0.30 | 818 |
| -121K | -14* | 0.12 | ±10% | 30 | 25 | 600**† | 0.30 | 818 |
| -151K | -15* | 0.15 | ±10% | 30 | 25 | 500**† | 0.30 | 818 |
| -181K | -16* | 0.18 | ±10% | 30 | 25 | 400**† | 0.35 | 757 |
| -221K | -17* | 0.22 | ±10% | 30 | 25 | 350**† | 0.40 | 708 |
| -271K | -18* | 0.27 | ±10% | 30 | 25 | 300**† | 0.45 | 668 |
| -331K | -19* | 0.33 | ±10% | 30 | 25 | 250 | 0.55 | 604 |
| -391K | -20* | 0.39 | ±10% | 30 | 25 | 220 | 0.70 | 535 |
| -471K | -21* | 0.47 | ±10% | 30 | 25 | 190 | 0.80 | 501 |
| -561K | -22* | 0.56 | ±10% | 30 | 25 | 170 | 1.20 | 409 |
| -681K | -23* | 0.68 | ±10% | 30 | 25 | 150 | 1.40 | 379 |
| -821K | -24* | 0.82 | ±10% | 30 | 25 | 140 | 1.60 | 354 |
| **M83446/39 FERRITE CORE** | | | | | | | | |
| -102J | -25* | 1.0 | ±5% | 50 | 7.9 | 100 | 0.50 | 634 |
| -122J | -26* | 1.2 | ±5% | 50 | 7.9 | 80 | 0.55 | 604 |
| -152J | -27* | 1.5 | ±5% | 50 | 7.9 | 70 | 0.60 | 578 |
| -182J | -28* | 1.8 | ±5% | 50 | 7.9 | 60 | 0.65 | 556 |
| -222J | -29* | 2.2 | ±5% | 50 | 7.9 | 55 | 0.70 | 535 |
| -272J | -30* | 2.7 | ±5% | 50 | 7.9 | 50 | 0.75 | 517 |
| -332J | -31* | 3.3 | ±5% | 50 | 7.9 | 45 | 0.80 | 501 |
| -392J | -32* | 3.9 | ±5% | 50 | 7.9 | 40 | 0.90 | 472 |
| -472J | -33* | 4.7 | ±5% | 50 | 7.9 | 35 | 1.00 | 448 |
| -562J | -34* | 5.6 | ±5% | 50 | 7.9 | 33 | 1.10 | 427 |
| -682J | -35* | 6.8 | ±5% | 50 | 7.9 | 27 | 1.20 | 409 |
| -822J | -36* | 8.2 | ±5% | 50 | 7.9 | 25 | 1.40 | 375 |
| -103J | -37* | 10 | ±5% | 50 | 7.9 | 20 | 1.60 | 354 |
| -123J | -38* | 12 | ±5% | 50 | 2.5 | 18 | 2.00 | 317 |
| -153J | -39* | 15 | ±5% | 50 | 2.5 | 17 | 2.50 | 283 |
| -183J | -40* | 18 | ±5% | 50 | 2.5 | 15 | 2.80 | 268 |
| -223J | -41* | 22 | ±5% | 50 | 2.5 | 13 | 3.20 | 250 |
| -273J | -42* | 27 | ±5% | 50 | 2.5 | 12 | 3.60 | 236 |
| -333J | -43* | 33 | ±5% | 50 | 2.5 | 11 | 4.00 | 224 |
| -393J | -44* | 39 | ±5% | 50 | 2.5 | 10 | 4.50 | 211 |
| -473J | -45* | 47 | ±5% | 50 | 2.5 | 10 | 5.00 | 200 |
| -563J | -46* | 56 | ±5% | 50 | 2.5 | 9 | 5.50 | 191 |
| -683J | -47* | 68 | ±5% | 50 | 2.5 | 9 | 6.00 | 183 |
| -823J | -48* | 82 | ±5% | 50 | 2.5 | 8 | 7.00 | 169 |
| -104J | -49* | 100 | ±5% | 50 | 2.5 | 8 | 8.00 | 158 |
| -124J | -50* | 120 | ±5% | 40 | 0.79 | 6 | 8.0 | 158 |
| -154J | -51* | 150 | ±5% | 40 | 0.79 | 6 | 9.0 | 149 |
| -184J | -52* | 180 | ±5% | 40 | 0.79 | 5 | 9.5 | 145 |
| -224J | -53* | 220 | ±5% | 40 | 0.79 | 4 | 10.0 | 142 |
| -274J | -54* | 270 | ±5% | 40 | 0.79 | 4 | 12.0 | 129 |
| -334J | -55* | 330 | ±5% | 40 | 0.79 | 3.5 | 14.0 | 120 |
| -394J | -56* | 390 | ±5% | 40 | 0.79 | 3.0 | 20.0 | 100 |
| -474J | -57* | 470 | ±5% | 40 | 0.79 | 3.0 | 26.0 | 88 |
| -564J | -58* | 560 | ±5% | 30 | 0.79 | 3.0 | 30.0 | 82 |
| -684J | -59* | 680 | ±5% | 30 | 0.79 | 3.0 | 30.0 | 82 |
| -824J | -60* | 820 | ±5% | 30 | 0.79 | 2.5 | 45.0 | 67 |
| -105J | -61* | 1000 | ±5% | 30 | 0.79 | 2.5 | 60.0 | 55 |

270 Quaker Rd., East Aurora NY 14052 • Phone 716-652-3600 • Fax 716-652-4814 • E-mail: apisales@delevan.com • www.delevan.com




API Delevan®