

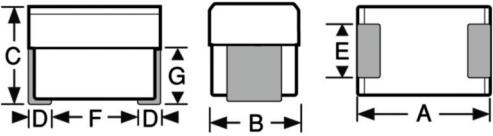
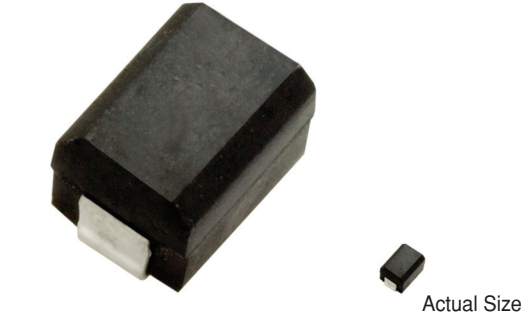
**SERIES**

**MIL1812R  
MIL1812**



**Unshielded Surface Mount Inductors**

DASH NUMBER\*  
MIL DASH #  
INDUCTANCE (µH)  
TOLERANCE  
Q MINIMUM  
TEST FREQUENCY (MHz)  
SRF MINIMUM (MHz)  
DC RESISTANCE MAXIMUM (OHMS)  
CURRENT RATING MAXIMUM (mA)



**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  
0.10µH±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](http://www.delevanfinishes.com)

| 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   |