

**SERIES****1812R**  
**1812****Unshielded Surface Mount Inductors**

Actual Size

**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.

**Marking** API/SMD; inductance with units and tolerance; date code (YYWWL). Note: An R before the date code indicates a RoHS component.

Example: 1812R-105J

API/SMD  
1mH±5%  
R 0629A

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

**Made In the U.S.A.**

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

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

For surface finish information,  
refer to [www.delevanfinishes.com](http://www.delevanfinishes.com)

| DASH NUMBER*                     | INDUCTANCE (μH) | TOLERANCE | Q MINIMUM | TEST FREQUENCY (MHz) | SRF MINIMUM (MHz) | DC RESISTANCE MAXIMUM (OHMS) | CURRENT RATING MAXIMUM (mA) |
|----------------------------------|-----------------|-----------|-----------|----------------------|-------------------|------------------------------|-----------------------------|
| <b>SERIES 1812 PHENOLIC CORE</b> |                 |           |           |                      |                   |                              |                             |
| -100M                            | 0.010           | ±20%      | 40        | 50                   | 1000*             | 0.10                         | 1230                        |
| -120M                            | 0.012           | ±20%      | 40        | 50                   | 1000*             | 0.10                         | 1230                        |
| -150M                            | 0.015           | ±20%      | 40        | 50                   | 1000*             | 0.10                         | 1230                        |
| -180M                            | 0.018           | ±20%      | 40        | 50                   | 1000*             | 0.10                         | 1230                        |
| -220M                            | 0.022           | ±20%      | 40        | 50                   | 1000*             | 0.10                         | 1230                        |
| -270M                            | 0.027           | ±20%      | 40        | 50                   | 1000*             | 0.15                         | 1000                        |
| -330M                            | 0.033           | ±20%      | 40        | 50                   | 1000*             | 0.15                         | 1000                        |
| -390M                            | 0.039           | ±20%      | 30        | 50                   | 1000*             | 0.20                         | 870                         |
| -470M                            | 0.047           | ±20%      | 30        | 50                   | 1000*             | 0.20                         | 870                         |
| -560M                            | 0.056           | ±20%      | 30        | 50                   | 850*              | 0.25                         | 770                         |
| -680M                            | 0.068           | ±20%      | 25        | 50                   | 750*              | 0.25                         | 770                         |
| -820M                            | 0.082           | ±20%      | 25        | 50                   | 750*              | 0.25                         | 700                         |
| <b>SERIES 1812 IRON CORE</b>     |                 |           |           |                      |                   |                              |                             |
| -101K                            | 0.10            | ±10%      | 30        | 25                   | 650               | 0.30                         | 818                         |
| -121K                            | 0.12            | ±10%      | 30        | 25                   | 600               | 0.30                         | 818                         |
| -151K                            | 0.15            | ±10%      | 30        | 25                   | 500               | 0.30                         | 818                         |
| -181K                            | 0.18            | ±10%      | 30        | 25                   | 400               | 0.35                         | 757                         |
| -221K                            | 0.22            | ±10%      | 30        | 25                   | 350               | 0.40                         | 708                         |
| -271K                            | 0.27            | ±10%      | 30        | 25                   | 300               | 0.45                         | 668                         |
| -331K                            | 0.33            | ±10%      | 30        | 25                   | 250               | 0.55                         | 604                         |
| -391K                            | 0.39            | ±10%      | 30        | 25                   | 220               | 0.70                         | 535                         |
| -471K                            | 0.47            | ±10%      | 30        | 25                   | 190               | 0.80                         | 501                         |
| -561K                            | 0.56            | ±10%      | 30        | 25                   | 170               | 1.20                         | 409                         |
| -681K                            | 0.68            | ±10%      | 30        | 25                   | 150               | 1.40                         | 379                         |
| -821K                            | 0.82            | ±10%      | 30        | 25                   | 140               | 1.60                         | 354                         |
| <b>SERIES 1812 FERRITE CORE</b>  |                 |           |           |                      |                   |                              |                             |
| -102J                            | 1.0             | ±5%       | 50        | 7.9                  | 100               | 0.50                         | 634                         |
| -122J                            | 1.2             | ±5%       | 50        | 7.9                  | 80                | 0.55                         | 604                         |
| -152J                            | 1.5             | ±5%       | 50        | 7.9                  | 70                | 0.60                         | 578                         |
| -182J                            | 1.8             | ±5%       | 50        | 7.9                  | 60                | 0.65                         | 556                         |
| -222J                            | 2.2             | ±5%       | 50        | 7.9                  | 55                | 0.70                         | 535                         |
| -272J                            | 2.7             | ±5%       | 50        | 7.9                  | 50                | 0.75                         | 517                         |
| -332J                            | 3.3             | ±5%       | 50        | 7.9                  | 45                | 0.80                         | 501                         |
| -392J                            | 3.9             | ±5%       | 50        | 7.9                  | 40                | 0.90                         | 472                         |
| -472J                            | 4.7             | ±5%       | 50        | 7.9                  | 35                | 1.00                         | 448                         |
| -562J                            | 5.6             | ±5%       | 50        | 7.9                  | 33                | 1.10                         | 427                         |
| -682J                            | 6.8             | ±5%       | 50        | 7.9                  | 27                | 1.20                         | 409                         |
| -822J                            | 8.2             | ±5%       | 50        | 7.9                  | 25                | 1.40                         | 375                         |
| -103J                            | 10              | ±5%       | 50        | 7.9                  | 20                | 1.60                         | 354                         |
| -123J                            | 12              | ±5%       | 50        | 2.5                  | 18                | 2.00                         | 317                         |
| -153J                            | 15              | ±5%       | 50        | 2.5                  | 17                | 2.50                         | 283                         |
| -183J                            | 18              | ±5%       | 50        | 2.5                  | 15                | 2.80                         | 268                         |
| -223J                            | 22              | ±5%       | 50        | 2.5                  | 13                | 3.20                         | 250                         |
| -273J                            | 27              | ±5%       | 50        | 2.5                  | 12                | 3.60                         | 236                         |
| -333J                            | 33              | ±5%       | 50        | 2.5                  | 11                | 4.00                         | 224                         |
| -393J                            | 39              | ±5%       | 50        | 2.5                  | 10                | 4.50                         | 211                         |
| -473J                            | 47              | ±5%       | 50        | 2.5                  | 10                | 5.00                         | 200                         |
| -563J                            | 56              | ±5%       | 50        | 2.5                  | 9                 | 5.50                         | 191                         |
| -683J                            | 68              | ±5%       | 50        | 2.5                  | 9                 | 6.00                         | 183                         |
| -823J                            | 82              | ±5%       | 50        | 2.5                  | 8                 | 7.00                         | 169                         |
| -104J                            | 100             | ±5%       | 50        | 2.5                  | 8                 | 8.00                         | 158                         |
| -124J                            | 120             | ±5%       | 40        | 0.79                 | 6                 | 8.0                          | 158                         |
| -154J                            | 150             | ±5%       | 40        | 0.79                 | 6                 | 9.0                          | 149                         |
| -184J                            | 180             | ±5%       | 40        | 0.79                 | 5                 | 9.5                          | 145                         |
| -224J                            | 220             | ±5%       | 40        | 0.79                 | 4                 | 10.0                         | 142                         |
| -274J                            | 270             | ±5%       | 40        | 0.79                 | 4                 | 12.0                         | 129                         |
| -334J                            | 330             | ±5%       | 40        | 0.79                 | 3.5               | 14.0                         | 120                         |
| -394J                            | 390             | ±5%       | 40        | 0.79                 | 3.0               | 20.0                         | 100                         |
| -474J                            | 470             | ±5%       | 40        | 0.79                 | 3.0               | 26.0                         | 88                          |
| -564J                            | 560             | ±5%       | 30        | 0.79                 | 3.0               | 30.0                         | 82                          |
| -684J                            | 680             | ±5%       | 30        | 0.79                 | 3.0               | 30.0                         | 82                          |
| -824J                            | 820             | ±5%       | 30        | 0.79                 | 2.5               | 45.0                         | 67                          |
| -105J                            | 1000            | ±5%       | 30        | 0.79                 | 2.5               | 60.0                         | 55                          |