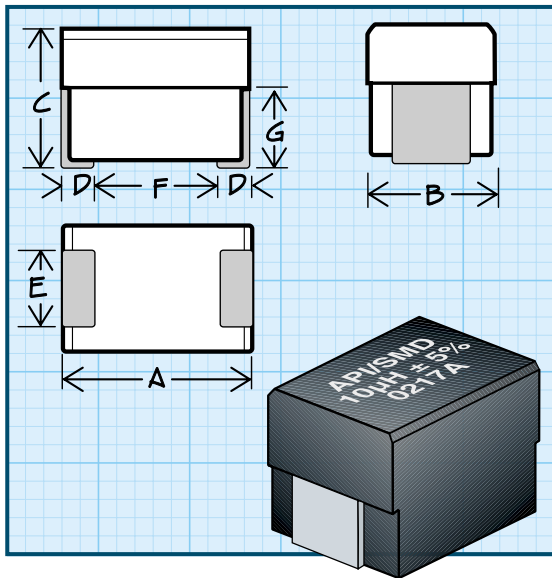


**Unshielded Surface Mount Inductors**

RF INDUCTORS



**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.

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

For further surface finish information, refer to TECHNICAL section of this catalog.

Made In the U.S.A. Patent Protected

DASH NUMBER\*

INDUCTANCE (µH)

TOLERANCE

Q MINIMUM

TEST FREQUENCY (MHz)

SRF MINIMUM (MHz) \*

DC RESISTANCE MAXIMUM (OHMS)

CURRENT RATING MAX. (mA)

| SERIES 1812 PHENOLIC CORE |       |      |    |    |       |      |      |
|---------------------------|-------|------|----|----|-------|------|------|
| -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  |

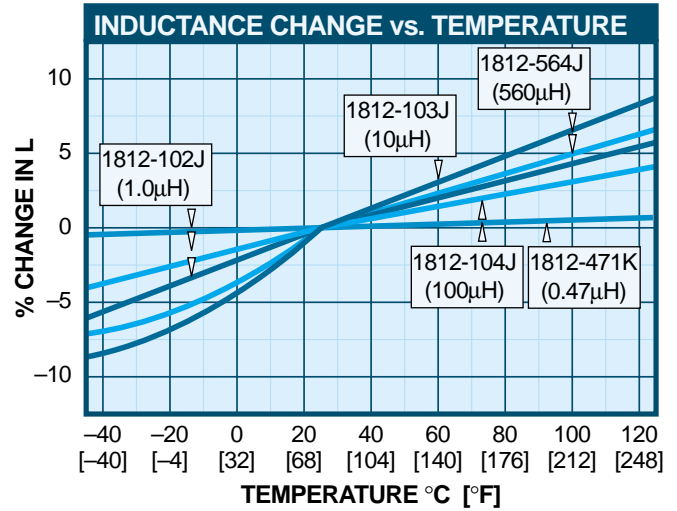
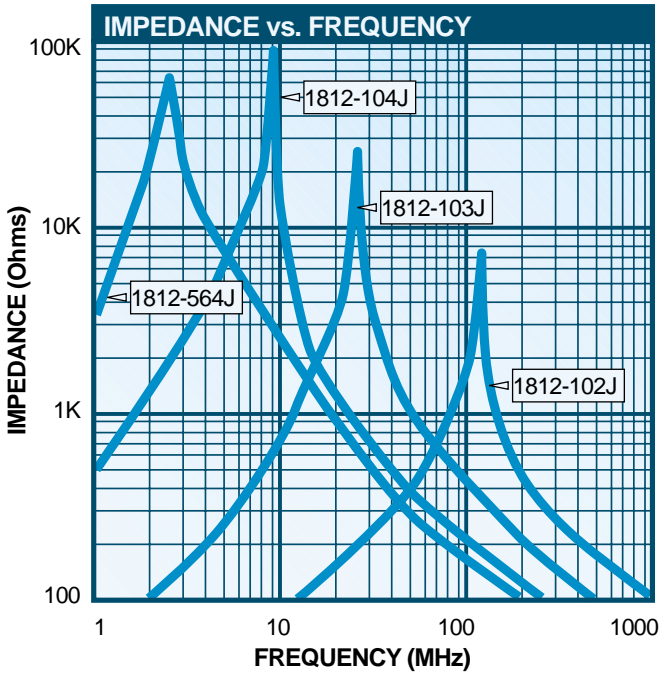
| SERIES 1812 IRON CORE |      |      |    |    |     |      |     |
|-----------------------|------|------|----|----|-----|------|-----|
| -101K                 | 0.10 | ±10% | 30 | 25 | 650 | 0.30 | 818 |
| -121K                 | 0.12 | ±10% | 30 | 25 | 600 | 0.30 | 818 |
| -151K                 | 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 |

| SERIES 1812 FERRITE CORE |      |     |    |      |     |      |     |
|--------------------------|------|-----|----|------|-----|------|-----|
| -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  |

Optional Tolerances: K = 10% J = 5% H = 3% G = 2% F = 1%

# Series 1812

## Performance Graphs



For more detailed graphs, contact factory

