

**SERIES****S1812R  
S1812****Shielded Surface Mount Inductors**

Actual Size

**Physical Parameters**

|   | Inches            | Millimeters     |
|---|-------------------|-----------------|
| A | 0.166 to 0.190    | 4.2 to 4.8      |
| B | 0.118 to 0.134    | 3.0 to 3.4      |
| C | 0.118 to 0.134    | 3.0 to 3.4      |
| D | 0.015 Min.        | 0.38 Min.       |
| E | 0.054 to 0.078    | 1.37 to 1.98    |
| F | 0.118 (Ref. only) | 3.0 (Ref. only) |
| G | 0.066 (Ref. only) | 1.7 (Ref. only) |

Dimensions "A" and "C" are over terminals

**Weight Max.** (Grams) 0.15**Operating Temperature Range** -55°C to +125°C**Current Rating at 90°C Ambient** 35°C Rise**Maximum Power Dissipation at 90°C** 0.278 W

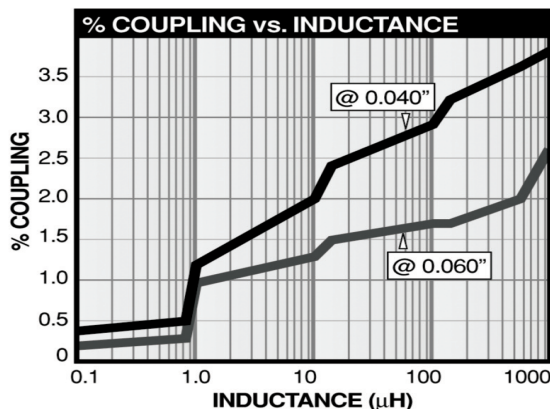
**Marking** API/SMD; inductance with units and tolerance followed by an S; date code (YYWWL). Note: An R before the date code indicates a RoHS component.

Example: S1812R-102K

API/SMD

1.0uH±10%S

R 0743A



For more detailed graphs, contact factory

| RF Inductor  |                           |           |                      |                   |                              |                             |      |
|--------------|---------------------------|-----------|----------------------|-------------------|------------------------------|-----------------------------|------|
| DASH NUMBER* | INDUCTANCE (μH) ±10%      | Q MINIMUM | TEST FREQUENCY (MHz) | SRF MINIMUM (MHz) | DC RESISTANCE MAXIMUM (OHMS) | CURRENT RATING MAXIMUM (mA) |      |
| S            | SERIES S1812 IRON CORE    |           |                      |                   |                              |                             |      |
|              | -101K                     | 0.10      | 50                   | 25                | 460                          | 0.09                        | 1490 |
|              | -121K                     | 0.12      | 50                   | 25                | 400                          | 0.10                        | 1412 |
|              | -151K                     | 0.15      | 50                   | 25                | 390                          | 0.11                        | 1347 |
|              | -181K                     | 0.18      | 50                   | 25                | 350                          | 0.12                        | 1290 |
|              | -221K                     | 0.22      | 50                   | 25                | 310                          | 0.15                        | 1154 |
|              | -271K                     | 0.27      | 50                   | 25                | 280                          | 0.18                        | 1053 |
|              | -331K                     | 0.33      | 40                   | 25                | 240                          | 0.22                        | 952  |
|              | -391K                     | 0.39      | 40                   | 25                | 215                          | 0.26                        | 876  |
|              | -471K                     | 0.47      | 40                   | 25                | 205                          | 0.31                        | 802  |
|              | -561K                     | 0.56      | 40                   | 25                | 185                          | 0.37                        | 735  |
|              | -681K                     | 0.68      | 40                   | 25                | 166                          | 0.44                        | 675  |
|              | -821K                     | 0.82      | 40                   | 25                | 155                          | 0.53                        | 614  |
|              | SERIES S1812 FERRITE CORE |           |                      |                   |                              |                             |      |
|              | -102K                     | 1.0       | 40                   | 7.9               | 160                          | 0.35                        | 755  |
|              | -122K                     | 1.2       | 40                   | 7.9               | 140                          | 0.38                        | 725  |
|              | -152K                     | 1.5       | 40                   | 7.9               | 110                          | 0.40                        | 706  |
|              | -182K                     | 1.8       | 40                   | 7.9               | 100                          | 0.43                        | 681  |
|              | -222K                     | 2.2       | 40                   | 7.9               | 90                           | 0.46                        | 658  |
|              | -272K                     | 2.7       | 40                   | 7.9               | 67                           | 0.49                        | 638  |
|              | -332K                     | 3.3       | 40                   | 7.9               | 61                           | 0.70                        | 534  |
|              | -392K                     | 3.9       | 40                   | 7.9               | 56                           | 0.84                        | 487  |
|              | -472K                     | 4.7       | 40                   | 7.9               | 50                           | 0.90                        | 471  |
|              | -562K                     | 5.6       | 40                   | 7.9               | 40                           | 1.00                        | 447  |
|              | -682K                     | 6.8       | 40                   | 7.9               | 32                           | 1.20                        | 408  |
|              | -822K                     | 8.2       | 40                   | 7.9               | 30                           | 1.44                        | 372  |
|              | -103K                     | 10        | 50                   | 2.5               | 25                           | 1.80                        | 333  |
|              | -123K                     | 12        | 50                   | 2.5               | 22                           | 2.00                        | 315  |
|              | -153K                     | 15        | 50                   | 2.5               | 18                           | 2.20                        | 301  |
|              | -183K                     | 18        | 50                   | 2.5               | 15                           | 2.40                        | 288  |
|              | -223K                     | 22        | 50                   | 2.5               | 14                           | 2.60                        | 277  |
|              | -273K                     | 27        | 50                   | 2.5               | 13                           | 2.80                        | 267  |
|              | -333K                     | 33        | 50                   | 2.5               | 12                           | 3.00                        | 258  |
|              | -393K                     | 39        | 50                   | 2.5               | 11                           | 3.20                        | 250  |
|              | -473K                     | 47        | 50                   | 2.5               | 9.0                          | 3.40                        | 242  |
|              | -563K                     | 56        | 50                   | 2.5               | 8.0                          | 3.60                        | 235  |
|              | -683K                     | 68        | 50                   | 2.5               | 7.6                          | 4.30                        | 215  |
|              | -823K                     | 82        | 50                   | 2.5               | 7.2                          | 5.20                        | 196  |
|              | -104K                     | 100       | 40                   | 0.79              | 7.0                          | 7.00                        | 169  |
|              | -124K                     | 120       | 40                   | 0.79              | 6.0                          | 7.50                        | 163  |
| -154K        | 150                       | 40        | 0.79                 | 5.0               | 8.00                         | 158                         |      |
| -184K        | 180                       | 40        | 0.79                 | 4.5               | 8.50                         | 153                         |      |
| -224K        | 220                       | 40        | 0.79                 | 4.2               | 9.00                         | 149                         |      |
| -274K        | 270                       | 40        | 0.79                 | 4.0               | 11.0                         | 135                         |      |
| -334K        | 330                       | 40        | 0.79                 | 3.7               | 12.0                         | 129                         |      |
| -394K        | 390                       | 40        | 0.79                 | 3.5               | 18.0                         | 105                         |      |
| -474K        | 470                       | 40        | 0.79                 | 3.3               | 24.0                         | 91                          |      |
| -564K        | 560                       | 40        | 0.79                 | 2.8               | 28.0                         | 84                          |      |
| -684K        | 680                       | 40        | 0.79                 | 2.6               | 32.0                         | 79                          |      |
| -824K        | 820                       | 40        | 0.79                 | 2.2               | 40.0                         | 71                          |      |
| -105K        | 1000                      | 40        | 0.79                 | 2.0               | 55.0                         | 60                          |      |

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

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

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