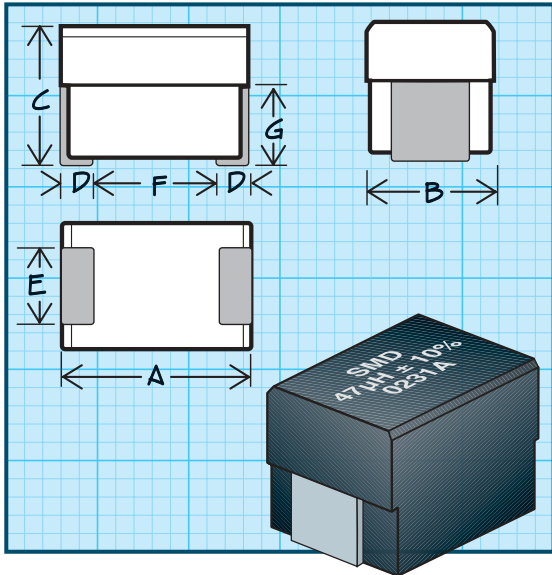


# Series S1812

## Shielded Surface Mount Inductors



### 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 | 0.038 Min.        | 0.97 Min.       |
| E | 0.041 to 0.061    | 1.0 to 1.5      |
| 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

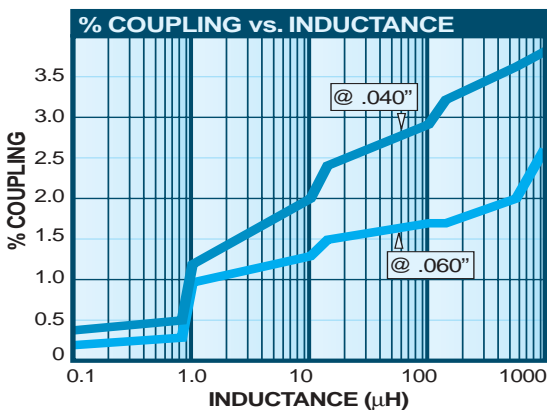
**Operating Temperature Range** -55°C to +125°C

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

**Maximum Power Dissipation at 90°C** 0.278 W

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

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



For more detailed graphs, contact factory

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

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