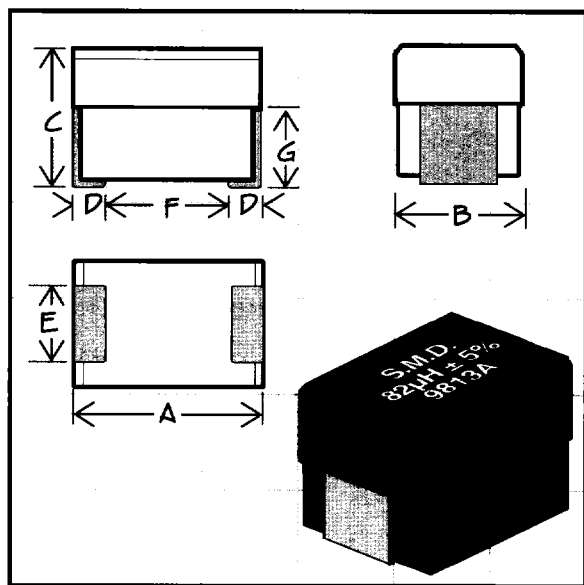


Series 1812

Unshielded Surface Mount 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

Patent Protected

Made In the U.S.A.

| PART NUMBER | INDUCTANCE (µH) | Q MINIMUM | | TEST FREQUENCY (MHz) | RESONANT FREQUENCY MINIMUM (MHz) | | DC RESISTANCE MAXIMUM (OHMS) | CURRENT RATING MAX. (mA) |
|----------------------------------|-----------------|-----------|----|----------------------|----------------------------------|------|------------------------------|--------------------------|
| | | 40 | 50 | | 0.10 | 0.15 | | |
| SERIES 1812 PHENOLIC CORE | | | | | | | | |
| 1812-100M | 0.010±20% | 40 | 50 | 1000 | 0.10 | 1230 | | |
| 1812-120M | 0.012±20% | 40 | 50 | 1000 | 0.10 | 1230 | | |
| 1812-150M | 0.015±20% | 40 | 50 | 1000 | 0.10 | 1230 | | |
| 1812-180M | 0.018±20% | 40 | 50 | 1000 | 0.10 | 1230 | | |
| 1812-220M | 0.022±20% | 40 | 50 | 1000 | 0.10 | 1230 | | |
| 1812-270M | 0.027±20% | 40 | 50 | 1000 | 0.15 | 1000 | | |
| 1812-330M | 0.033±20% | 40 | 50 | 1000 | 0.15 | 1000 | | |
| 1812-390M | 0.039±20% | 30 | 50 | 1000 | 0.20 | 870 | | |
| 1812-470M | 0.047±20% | 30 | 50 | 1000 | 0.20 | 870 | | |
| 1812-560M | 0.056±20% | 30 | 50 | 850 | 0.25 | 770 | | |
| 1812-680M | 0.068±20% | 25 | 50 | 750 | 0.25 | 770 | | |
| 1812-820M | 0.082±20% | 25 | 50 | 750 | 0.25 | 700 | | |

| PART NUMBER | INDUCTANCE (µH) | Q MINIMUM | | TEST FREQUENCY (MHz) | RESONANT FREQUENCY MINIMUM (MHz) | | DC RESISTANCE MAXIMUM (OHMS) | CURRENT RATING MAX. (mA) |
|------------------------------|-----------------|-----------|----|----------------------|----------------------------------|------|------------------------------|--------------------------|
| | | 30 | 25 | | 0.30 | 0.40 | | |
| SERIES 1812 IRON CORE | | | | | | | | |
| 1812-101K | 0.10±10% | 30 | 25 | 650 | 0.30 | 818 | | |
| 1812-121K | 0.12±10% | 30 | 25 | 600 | 0.30 | 818 | | |
| 1812-151K | 0.15±10% | 30 | 25 | 500 | 0.30 | 818 | | |
| 1812-181K | 0.18±10% | 30 | 25 | 400 | 0.35 | 757 | | |
| 1812-221K | 0.22±10% | 30 | 25 | 350 | 0.40 | 708 | | |
| 1812-271K | 0.27±10% | 30 | 25 | 300 | 0.45 | 668 | | |
| 1812-331K | 0.33±10% | 30 | 25 | 250 | 0.55 | 604 | | |
| 1812-391K | 0.39±10% | 30 | 25 | 220 | 0.70 | 535 | | |
| 1812-471K | 0.47±10% | 30 | 25 | 190 | 0.80 | 501 | | |
| 1812-561K | 0.56±10% | 30 | 25 | 170 | 1.20 | 409 | | |
| 1812-681K | 0.68±10% | 30 | 25 | 150 | 1.40 | 379 | | |
| 1812-821K | 0.82±10% | 30 | 25 | 140 | 1.60 | 354 | | |

| PART NUMBER | INDUCTANCE (µH) | Q MINIMUM | | TEST FREQUENCY (MHz) | RESONANT FREQUENCY MINIMUM (MHz) | | DC RESISTANCE MAXIMUM (OHMS) | CURRENT RATING MAX. (mA) |
|---------------------------------|-----------------|-----------|------|----------------------|----------------------------------|------|------------------------------|--------------------------|
| | | 50 | 7.9 | | 0.50 | 0.60 | | |
| SERIES 1812 FERRITE CORE | | | | | | | | |
| 1812-102J | 1.0±5% | 50 | 7.9 | 100 | 0.50 | 634 | | |
| 1812-122J | 1.2±5% | 50 | 7.9 | 80 | 0.55 | 604 | | |
| 1812-152J | 1.5±5% | 50 | 7.9 | 70 | 0.60 | 578 | | |
| 1812-182J | 1.8±5% | 50 | 7.9 | 60 | 0.65 | 556 | | |
| 1812-222J | 2.2±5% | 50 | 7.9 | 55 | 0.70 | 535 | | |
| 1812-272J | 2.7±5% | 50 | 7.9 | 50 | 0.75 | 517 | | |
| 1812-332J | 3.3±5% | 50 | 7.9 | 45 | 0.80 | 501 | | |
| 1812-392J | 3.9±5% | 50 | 7.9 | 40 | 0.90 | 472 | | |
| 1812-472J | 4.7±5% | 50 | 7.9 | 35 | 1.00 | 448 | | |
| 1812-562J | 5.6±5% | 50 | 7.9 | 33 | 1.10 | 427 | | |
| 1812-682J | 6.8±5% | 50 | 7.9 | 27 | 1.20 | 409 | | |
| 1812-822J | 8.2±5% | 50 | 7.9 | 25 | 1.40 | 375 | | |
| 1812-103J | 10±5% | 50 | 7.9 | 20 | 1.60 | 354 | | |
| 1812-123J | 12±5% | 50 | 2.5 | 18 | 2.00 | 317 | | |
| 1812-153J | 15±5% | 50 | 2.5 | 17 | 2.50 | 283 | | |
| 1812-183J | 18±5% | 50 | 2.5 | 15 | 2.80 | 268 | | |
| 1812-223J | 22±5% | 50 | 2.5 | 13 | 3.20 | 250 | | |
| 1812-273J | 27±5% | 50 | 2.5 | 12 | 3.60 | 236 | | |
| 1812-333J | 33±5% | 50 | 2.5 | 11 | 4.00 | 224 | | |
| 1812-393J | 39±5% | 50 | 2.5 | 10 | 4.50 | 211 | | |
| 1812-473J | 47±5% | 50 | 2.5 | 10 | 5.00 | 200 | | |
| 1812-563J | 56±5% | 50 | 2.5 | 9 | 5.50 | 191 | | |
| 1812-683J | 68±5% | 50 | 2.5 | 9 | 6.00 | 183 | | |
| 1812-823J | 82±5% | 50 | 2.5 | 8 | 7.00 | 169 | | |
| 1812-104J | 100±5% | 50 | 2.5 | 8 | 8.00 | 158 | | |
| 1812-124J | 120±5% | 40 | 0.79 | 6 | 8.0 | 158 | | |
| 1812-154J | 150±5% | 40 | 0.79 | 6 | 9.0 | 149 | | |
| 1812-184J | 180±5% | 40 | 0.79 | 5 | 9.5 | 145 | | |
| 1812-224J | 220±5% | 40 | 0.79 | 4 | 10.0 | 142 | | |
| 1812-274J | 270±5% | 40 | 0.79 | 4 | 12.0 | 129 | | |
| 1812-334J | 330±5% | 40 | 0.79 | 3.5 | 14.0 | 120 | | |
| 1812-394J | 390±5% | 40 | 0.79 | 3.0 | 20.0 | 100 | | |
| 1812-474J | 470±5% | 40 | 0.79 | 3.0 | 26.0 | 88 | | |
| 1812-564J | 560±5% | 30 | 0.79 | 3.0 | 30.0 | 82 | | |
| 1812-684J | 680±5% | 30 | 0.79 | 3.0 | 30.0 | 82 | | |
| 1812-824J | 820±5% | 30 | 0.79 | 2.5 | 45.0 | 67 | | |
| 1812-105J | 1000±5% | 30 | 0.79 | 2.5 | 60.0 | 55 | | |

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

Series 1812

Performance Graphs

