

**MOLDED CHIP INDUCTOR
SERIES IC1812**

FEATURES

- Highly reliable in environments of sudden temperature changes and humidity
- Large electrodes and strong terminals allow more secure bonding to solder pads
- Good for flow, reflow soldering, or soldering irons

ELECTRICAL CHARACTERISTICS

- Inductance range 0.10μH to 1000μH
- Tolerance ± 20% for values under 1.0μH
 ± 10% for values at or above 1.0μH
 Special tolerances are available on special order.
- Rated current Based on current flow and temperature rise of 20°C max.
- Test procedure L & Q are measured with HP-4191A & HP-4192A
- *Suffix E Identifies parts that will be passed through a second soldering reflow process at 215°C

PHYSICAL CHARACTERISTICS

- Operating temp. -55°C to +105°C
- Construction Wire wound, epoxy molding
- Soldering heat 240°C for 10 seconds resistance
- Solderability Preheat: 120°C for 4 minutes
 Solder temperature 215°C
 Dwelling time: 3 seconds
 95% of terminals are covered with solder
- Terminal Lead frame
- Terminal strength 3 lbs pull test
- Resistance to solvents Conforms to MIL-STD-202E
- Marking On part: Inductance
 On reel: Part number, Quantity, Production date
- Packaging 500 pieces per reel
- Reel specifications 178 mm paper or plastic reel with embossed carrier tape 12 mm width, 4 mm pitch

DIMENSIONS IN MILLIMETERS

- Body length A 4.5 mm ± 0.2 mm
- Body width B 3.2 mm ± 0.2 mm
- Body height C 3.2 mm ± 0.2 mm
- Terminal length D 0.7 mm to 1.3 mm
- Terminal width E 1.1 mm to 1.8 mm

SPECIFICATIONS

| Part Number | L (μH) | Tol (%) | Q Min | Test Freq (MHz) | SRF Min (MHz) | DCR Max (Ω) | Rated Current (mA) |
|----------------|--------|---------|-------|-----------------|---------------|-------------|--------------------|
| IC1812-R10M | 0.10 | ±20 | 28 | 25.2 | 700 | 0.44 | 450 |
| IC1812-R12M | 0.12 | | 30 | | 500 | 0.22 | 450 |
| IC1812-R15M | 0.15 | | 30 | | 450 | 0.25 | 450 |
| IC1812-R18M | 0.18 | | 30 | | 400 | 0.28 | 450 |
| IC1812-R22M | 0.22 | | 30 | | 350 | 0.32 | 450 |
| IC1812-R27M | 0.27 | | 30 | | 320 | 0.36 | 450 |
| IC1812-R33M | 0.33 | | 30 | | 300 | 0.40 | 450 |
| IC1812-R39M | 0.39 | | 30 | | 350 | 0.45 | 450 |
| IC1812-R47M | 0.47 | | 30 | | 220 | 0.50 | 450 |
| IC1812-R56M | 0.56 | | 30 | | 180 | 0.55 | 450 |
| IC1812-R68M | 0.68 | | 30 | | 160 | 0.60 | 450 |
| IC1812-R82M | 0.82 | | 30 | | 140 | 0.67 | 450 |
| IC1812-1R0K | 1.0 | ±10 | 50 | 7.96 | 100 | 0.50 | 450 |
| IC1812-1R2K | 1.2 | | 50 | | 80 | 0.55 | 430 |
| IC1812-1R5K | 1.5 | | 50 | | 70 | 0.60 | 410 |
| IC1812-1R8K | 1.8 | | 50 | | 60 | 0.65 | 390 |
| IC1812-2R2K | 2.2 | | 50 | | 55 | 0.70 | 380 |
| IC1812-2R7K | 2.7 | | 50 | | 50 | 0.75 | 370 |
| IC1812-3R3K | 3.3 | | 50 | | 45 | 0.80 | 355 |
| IC1812-3R9K | 3.9 | | 50 | | 40 | 0.90 | 330 |
| IC1812-4R7K | 4.7 | | 50 | | 35 | 1.0 | 315 |
| IC1812-5R6K | 5.6 | | 50 | | 33 | 1.1 | 300 |
| IC1812-6R8K | 6.8 | | 50 | | 27 | 1.2 | 285 |
| IC1812-8R2K | 8.2 | | 50 | | 25 | 1.4 | 270 |
| IC1812-100K | 10 | 50 | 2.52 | 20 | 1.6 | 250 | |
| IC1812-120K | 12 | 50 | | 18 | 2.0 | 225 | |
| IC1812-150K | 15 | 50 | | 17 | 2.5 | 200 | |
| IC1812-180K | 18 | 50 | | 15 | 2.8 | 190 | |
| IC1812-220K | 22 | 50 | | 13 | 3.2 | 180 | |
| IC1812-270K | 27 | 50 | | 12 | 3.6 | 170 | |
| IC1812-330K | 33 | 50 | | 11 | 4.0 | 160 | |
| IC1812-390K | 39 | 50 | | 10 | 4.5 | 150 | |
| IC1812-470K | 47 | 50 | | 10 | 5.0 | 140 | |
| IC1812-560K | 56 | 50 | | 9 | 5.5 | 135 | |
| IC1812-680K | 68 | 50 | | 9 | 6.0 | 130 | |
| IC1812-820K | 82 | 50 | | 8 | 7.0 | 120 | |
| IC1812-101K | 100 | 40 | 0.796 | 7 | 8.0 | 110 | |
| IC1812-121K | 120 | 40 | | 6 | 8.0 | 110 | |
| IC1812-151K | 150 | 40 | | 5 | 9.0 | 105 | |
| IC1812-181K | 180 | 40 | | 5 | 9.5 | 102 | |
| IC1812-221K | 220 | 40 | | 4 | 10.0 | 100 | |
| IC1812-271K | 270 | 30 | | 3 | 18.0 | 92 | |
| IC1812-271K-E* | 270 | 30 | | 3 | 18.0 | 92 | |
| IC1812-331K | 330 | 30 | | 3 | 20.0 | 85 | |
| IC1812-391K | 390 | 30 | | 3 | 23.0 | 80 | |
| IC1812-471K | 470 | 30 | | 3 | 26.0 | 62 | |
| IC1812-561K | 560 | 30 | | 2 | 30.0 | 50 | |
| IC1812-681K | 680 | 30 | | 2 | 40.0 | 50 | |
| IC1812-821K | 820 | 30 | 2 | 45.0 | 30 | | |
| IC1812-102K | 1000 | 30 | 2 | 50.0 | 30 | | |

