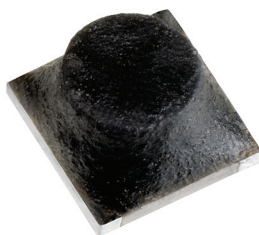
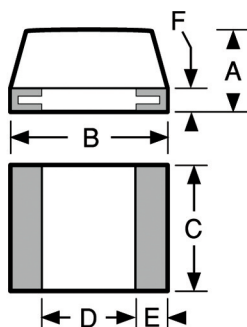


**SERIES****3090R  
3090****Micro i® Low Profile Chip Inductors**

Actual Size

**Physical Parameters**

|   | Inches            | Millimeters      |
|---|-------------------|------------------|
| A | 0.050 Max.        | 1.27 Max.        |
| B | 0.100±0.010       | 2.54±0.254       |
| C | 0.100±0.010       | 2.54±0.254       |
| D | 0.050 Min.        | 1.27 Min.        |
| E | 0.015 Min. (Typ.) | 0.38 Min. (Typ.) |
| F | 0.020 Max. (Typ.) | 0.51 Max. (Typ.) |

**Current Rating at 90°C Ambient** 35°C Rise**Operating Temperature Range** -55°C to +125°C**Maximum Power Dissipation at 90°C** 0.105 W**Core Material** Powdered iron core for improved temperature stability.**Mechanical Configuration** Units are epoxy encapsulated. Contact area for reflow soldering are gold plated per MIL-G-45204 Type 1 Grade A. Internal connections are thermal compression bonded.**Termination Finish Options**

Standard: Gold over Nickel.

For Tin/Lead over Nickel: Add suffix "S" to part number and allow an additional .010 inch for maximum height. For RoHS, order 3090R - XXXKS.

**Notes** 1) Designed specifically for reflow soldering and other high temperature processes with metalized edges to exhibit solder fillet. 2) Self Resonant Frequency (SRF) values 250 MHz and above are calculated and for reference only.**Packaging** Tape & reel (8mm): 7" reel, 2000 pieces max.; 13" reel, 8000 pieces max.**MIL-PRF-83446** (Reference) for testing methods only.**Made in the U.S.A.**

| DASH NUMBER*          | INDUCTANCE (μH) | TOLERANCE | Q MINIMUM | TEST FREQUENCY (MHz) | SRF MINIMUM (MHz) | DC RESISTANCE MAXIMUM (OHMS) | CURRENT RATING MAXIMUM (mA) |
|-----------------------|-----------------|-----------|-----------|----------------------|-------------------|------------------------------|-----------------------------|
| SERIES 3090 IRON CORE |                 |           |           |                      |                   |                              |                             |
| -100M                 | 0.010           | ± 20%     | 42        | 50.0                 | 1000              | 0.095                        | 890                         |
| -150M                 | 0.015           | ± 20%     | 42        | 50.0                 | 1000              | 0.115                        | 810                         |
| -220M                 | 0.022           | ± 20%     | 40        | 50.0                 | 1000              | 0.140                        | 765                         |
| -330K                 | 0.033           | ± 10%     | 40        | 50.0                 | 900               | 0.185                        | 640                         |
| -390K                 | 0.039           | ± 10%     | 40        | 50.0                 | 900               | 0.100                        | 870                         |
| -470K                 | 0.047           | ± 10%     | 38        | 50.0                 | 900               | 0.110                        | 830                         |
| -560K                 | 0.056           | ± 10%     | 35        | 50.0                 | 800               | 0.135                        | 750                         |
| -680K                 | 0.068           | ± 10%     | 30        | 50.0                 | 700               | 0.16                         | 690                         |
| -820K                 | 0.082           | ± 10%     | 25        | 50.0                 | 650               | 0.19                         | 630                         |
| -101K                 | 0.10            | ± 10%     | 32        | 25.0                 | 510               | 0.08                         | 970                         |
| -121K                 | 0.12            | ± 10%     | 32        | 25.0                 | 410               | 0.10                         | 870                         |
| -151K                 | 0.15            | ± 10%     | 32        | 25.0                 | 370               | 0.12                         | 795                         |
| -181K                 | 0.18            | ± 10%     | 32        | 25.0                 | 330               | 0.14                         | 765                         |
| -221K                 | 0.22            | ± 10%     | 34        | 25.0                 | 300               | 0.16                         | 690                         |
| -271K                 | 0.27            | ± 10%     | 34        | 25.0                 | 250               | 0.20                         | 615                         |
| -331K                 | 0.33            | ± 10%     | 34        | 25.0                 | 220               | 0.25                         | 550                         |
| -391K                 | 0.39            | ± 10%     | 34        | 25.0                 | 200               | 0.30                         | 500                         |
| -471K                 | 0.47            | ± 10%     | 34        | 25.0                 | 180               | 0.36                         | 460                         |
| -561K                 | 0.56            | ± 10%     | 34        | 25.0                 | 160               | 0.45                         | 410                         |
| -681K                 | 0.68            | ± 10%     | 30        | 25.0                 | 140               | 0.50                         | 390                         |
| -821K                 | 0.82            | ± 10%     | 28        | 25.0                 | 120               | 0.60                         | 355                         |
| -102K                 | 1.00            | ± 10%     | 24        | 25.0                 | 100               | 0.70                         | 330                         |
| -122K                 | 1.20            | ± 10%     | 24        | 7.9                  | 95                | 1.10                         | 265                         |
| -152K                 | 1.50            | ± 10%     | 24        | 7.9                  | 90                | 1.20                         | 250                         |
| -182K                 | 1.80            | ± 10%     | 24        | 7.9                  | 85                | 1.25                         | 245                         |
| -222K                 | 2.20            | ± 10%     | 25        | 7.9                  | 80                | 1.30                         | 240                         |
| -272K                 | 2.70            | ± 10%     | 25        | 7.9                  | 70                | 1.50                         | 225                         |
| -332K                 | 3.30            | ± 10%     | 25        | 7.9                  | 65                | 1.90                         | 200                         |
| -392K                 | 3.90            | ± 10%     | 25        | 7.9                  | 60                | 2.30                         | 180                         |
| -472K                 | 4.70            | ± 10%     | 24        | 7.9                  | 55                | 3.00                         | 160                         |
| -562K                 | 5.60            | ± 10%     | 22        | 7.9                  | 53                | 3.50                         | 145                         |
| -682K                 | 6.80            | ± 10%     | 22        | 7.9                  | 50                | 4.00                         | 135                         |
| -822K                 | 8.20            | ± 10%     | 22        | 7.9                  | 45                | 4.50                         | 130                         |
| -103K                 | 10.0            | ± 10%     | 20        | 7.9                  | 40                | 5.00                         | 120                         |

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

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