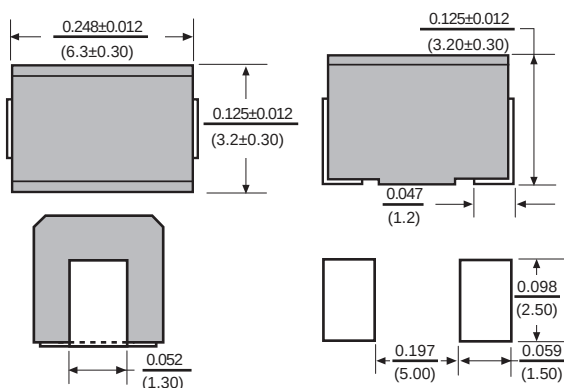


# MC50 Molded Chip Inductors



Dimensions: Inches  
(mm)



## Features

- 2512 Molded Chip Inductor
- Excellent Solder Heat Resistance
- Terminals have high resistance to pull forces

## Electrical

**Inductance Range:** .22 $\mu$ h ~ 1000 $\mu$ h

**Tolerance:** 20% from .22 $\mu$ h ~ .82 $\mu$ h  
10% from 1.0 $\mu$ h ~ 1000 $\mu$ h  
Also available in 5% & 20%

### Test Frequency:

.22 $\mu$ h ~ .10 $\mu$ h measured at 25.2Mhz,  
1.2 $\mu$ h ~ 10 $\mu$ h measured at 7.96Mhz,  
12 $\mu$ h ~ 100 $\mu$ h measured at 2.52Mhz,  
120 $\mu$ h ~ 1000 $\mu$ h measured at .796Mhz,

**Operating Temp:** -20°C ~ +85°C @ 75% RH

**IDC:** The current at which inductance will drop no more than 10% of its original value or a temperature rise of  $\Delta T=20^\circ\text{C}$  whichever occurs first.

## Test Equipment

(L/Q): HP4285A + HP16034E

(RDC): Chen Hwa 502

(SRF): HP4291B

## Physical

**Packaging:** 2000 pieces per, 13" reel

**Marking:** EIA Inductance code

| Allied Part Number | Inductance ( $\mu$ h) | Tolerance (%) | Q Min. | Test Freq. (MHz) | SRF Min. (MHz) | DCR Max. ( $\Omega$ ) | IDC (mA) |
|--------------------|-----------------------|---------------|--------|------------------|----------------|-----------------------|----------|
| MC50-R22M-RC       | .22                   | 20            | 40     | 25.2             | 380            | 0.32                  | 1150     |
| MC50-R27M-RC       | .27                   | 20            | 40     | 25.2             | 360            | 0.36                  | 450      |
| MC50-R33M-RC       | .33                   | 20            | 40     | 25.2             | 300            | 0.40                  | 450      |
| MC50-R39M-RC       | .39                   | 20            | 40     | 25.2             | 250            | 0.45                  | 450      |
| MC50-R47M-RC       | .47                   | 20            | 40     | 25.2             | 220            | 0.50                  | 450      |
| MC50-R56M-RC       | .56                   | 20            | 40     | 25.2             | 180            | 0.55                  | 450      |
| MC50-R68M-RC       | .68                   | 20            | 40     | 25.2             | 160            | 0.60                  | 450      |
| MC50-R82M-RC       | .82                   | 20            | 40     | 25.2             | 140            | 0.67                  | 450      |
| MC50-1R0K-RC       | 1.0                   | 10            | 40     | 25.2             | 100            | 0.50                  | 450      |
| MC50-1R2K-RC       | 1.2                   | 10            | 40     | 7.96             | 80             | 0.55                  | 430      |
| MC50-1R5K-RC       | 1.5                   | 10            | 45     | 7.96             | 70             | 0.60                  | 410      |
| MC50-1R8K-RC       | 1.8                   | 10            | 50     | 7.96             | 60             | 0.65                  | 390      |
| MC50-2R2K-RC       | 2.2                   | 10            | 50     | 7.96             | 55             | 0.70                  | 380      |
| MC50-2R7K-RC       | 2.7                   | 10            | 50     | 7.96             | 50             | 0.75                  | 370      |
| MC50-3R3K-RC       | 3.3                   | 10            | 50     | 7.96             | 45             | 0.80                  | 355      |
| MC50-3R9K-RC       | 3.9                   | 10            | 45     | 7.96             | 40             | 0.90                  | 330      |
| MC50-4R7K-RC       | 4.7                   | 10            | 45     | 7.96             | 35             | 1.00                  | 315      |
| MC50-5R6K-RC       | 5.6                   | 10            | 45     | 7.96             | 33             | 1.10                  | 300      |
| MC50-6R8K-RC       | 6.8                   | 10            | 40     | 7.96             | 27             | 1.20                  | 285      |
| MC50-8R2K-RC       | 8.2                   | 10            | 40     | 7.96             | 25             | 1.40                  | 270      |
| MC50-100K-RC       | 10                    | 10            | 40     | 7.96             | 20             | 1.60                  | 250      |
| MC50-120K-RC       | 12                    | 10            | 45     | 2.52             | 18             | 2.00                  | 225      |
| MC50-150K-RC       | 15                    | 10            | 50     | 2.52             | 17             | 2.50                  | 200      |
| MC50-180K-RC       | 18                    | 10            | 50     | 2.52             | 15             | 2.80                  | 190      |
| MC50-220K-RC       | 22                    | 10            | 50     | 2.52             | 13             | 3.20                  | 180      |
| MC50-270K-RC       | 27                    | 10            | 50     | 2.52             | 12             | 3.60                  | 170      |
| MC50-330K-RC       | 33                    | 10            | 50     | 2.52             | 11             | 4.00                  | 160      |
| MC50-390K-RC       | 39                    | 10            | 50     | 2.52             | 10             | 4.50                  | 150      |
| MC50-470K-RC       | 47                    | 10            | 50     | 2.52             | 10             | 5.00                  | 140      |
| MC50-560K-RC       | 56                    | 10            | 50     | 2.52             | 9.0            | 5.50                  | 135      |
| MC50-680K-RC       | 68                    | 10            | 50     | 2.52             | 9.0            | 6.00                  | 130      |
| MC50-820K-RC       | 82                    | 10            | 50     | 2.52             | 8.0            | 7.00                  | 120      |
| MC50-101K-RC       | 100                   | 10            | 50     | 2.52             | 8.0            | 8.00                  | 110      |
| MC50-121K-RC       | 120                   | 10            | 50     | .796             | 6.0            | 8.00                  | 110      |
| MC50-151K-RC       | 150                   | 10            | 50     | .796             | 5.0            | 9.00                  | 105      |
| MC50-181K-RC       | 180                   | 10            | 50     | .796             | 5.0            | 9.50                  | 102      |
| MC50-221K-RC       | 220                   | 10            | 50     | .796             | 4.0            | 12.0                  | 100      |
| MC50-271K-RC       | 270                   | 10            | 50     | .796             | 4.0            | 18.0                  | 92       |
| MC50-331K-RC       | 330                   | 10            | 50     | .796             | 3.5            | 20.0                  | 85       |
| MC50-391K-RC       | 390                   | 10            | 50     | .796             | 3.0            | 23.0                  | 80       |
| MC50-471K-RC       | 470                   | 10            | 50     | .796             | 3.0            | 26.0                  | 62       |
| MC50-561K-RC       | 560                   | 10            | 50     | .796             | 3.0            | 30.0                  | 50       |
| MC50-681K-RC       | 680                   | 10            | 50     | .796             | 3.0            | 40.0                  | 50       |
| MC50-821K-RC       | 820                   | 10            | 50     | .796             | 2.5            | 45.0                  | 30       |
| MC50-102K-RC       | 1000                  | 10            | 50     | .796             | 2.5            | 50.0                  | 30       |

Available in tighter tolerances.  
All specifications subject to change without notice.