

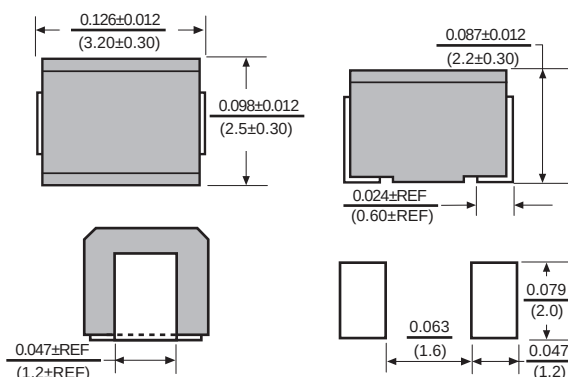


# Molded Chip Inductors

# MC20



Dimensions:  $\frac{\text{Inches}}{(\text{mm})}$



| Allied Part Number | Inductance (μH) | Tolerance (%) | Q Min. | Test Freq. (MHz) | SRF Min. (MHz) | DCR Max. (Ω) | IDC (mA) |
|--------------------|-----------------|---------------|--------|------------------|----------------|--------------|----------|
| MC20-R010K-RC      | .010            | 10            | 15     | 100              | 2500           | 0.13         | 450      |
| MC20-R012K-RC      | .012            | 10            | 17     | 100              | 2300           | 0.14         | 450      |
| MC20-R015K-RC      | .015            | 10            | 19     | 100              | 2100           | 0.16         | 450      |
| MC20-R018K-RC      | .018            | 10            | 21     | 100              | 1900           | 0.18         | 450      |
| MC20-R022K-RC      | .022            | 10            | 23     | 100              | 1700           | 0.20         | 450      |
| MC20-R027K-RC      | .027            | 10            | 23     | 100              | 1500           | 0.22         | 450      |
| MC20-R033K-RC      | .033            | 10            | 25     | 100              | 1400           | 0.24         | 450      |
| MC20-R039K-RC      | .039            | 10            | 25     | 100              | 1300           | 0.27         | 450      |
| MC20-R047K-RC      | .047            | 10            | 26     | 100              | 1200           | 0.30         | 450      |
| MC20-R056K-RC      | .056            | 10            | 26     | 100              | 1100           | 0.33         | 450      |
| MC20-R068K-RC      | .068            | 10            | 27     | 100              | 1000           | 0.36         | 450      |
| MC20-R082K-RC      | .082            | 10            | 27     | 100              | 900            | 0.40         | 450      |
| MC20-R10K-RC       | .10             | 10            | 28     | 100              | 700            | 0.44         | 450      |
| MC20-R12K-RC       | .12             | 10            | 30     | 25.2             | 500            | 0.22         | 450      |
| MC20-R15K-RC       | .15             | 10            | 30     | 25.2             | 450            | 0.25         | 450      |
| MC20-R18K-RC       | .18             | 10            | 30     | 25.2             | 400            | 0.28         | 450      |
| MC20-R22K-RC       | .22             | 10            | 30     | 25.2             | 350            | 0.32         | 450      |
| MC20-R27K-RC       | .27             | 10            | 30     | 25.2             | 320            | 0.36         | 450      |
| MC20-R33K-RC       | .33             | 10            | 30     | 25.2             | 300            | 0.40         | 450      |
| MC20-R39K-RC       | .39             | 10            | 30     | 25.2             | 250            | 0.45         | 450      |
| MC20-R47K-RC       | .47             | 10            | 30     | 25.2             | 220            | 0.50         | 450      |
| MC20-R56K-RC       | .56             | 10            | 30     | 25.2             | 180            | 0.55         | 450      |
| MC20-R68K-RC       | .68             | 10            | 30     | 25.2             | 160            | 0.60         | 450      |
| MC20-R82K-RC       | .82             | 10            | 30     | 25.2             | 140            | 0.65         | 450      |
| MC20-1R0K-RC       | 1.0             | 10            | 30     | 7.96             | 90             | 0.70         | 400      |
| MC20-1R2K-RC       | 1.2             | 10            | 30     | 7.96             | 85             | 0.75         | 390      |
| MC20-1R5K-RC       | 1.5             | 10            | 30     | 7.96             | 70             | 0.85         | 370      |
| MC20-1R8K-RC       | 1.8             | 10            | 30     | 7.96             | 60             | 0.90         | 350      |
| MC20-2R2K-RC       | 2.2             | 10            | 30     | 7.96             | 50             | 1.0          | 320      |
| MC20-2R7K-RC       | 2.7             | 10            | 30     | 7.96             | 45             | 1.1          | 290      |
| MC20-3R3K-RC       | 3.3             | 10            | 30     | 7.96             | 40             | 1.2          | 260      |
| MC20-3R9K-RC       | 3.9             | 10            | 30     | 7.96             | 37             | 1.3          | 250      |
| MC20-4R7K-RC       | 4.7             | 10            | 30     | 7.96             | 32             | 1.5          | 220      |
| MC20-5R6K-RC       | 5.6             | 10            | 30     | 7.96             | 30             | 1.6          | 200      |
| MC20-6R8K-RC       | 6.8             | 10            | 30     | 7.96             | 28             | 1.8          | 180      |
| MC20-8R2K-RC       | 8.2             | 10            | 30     | 7.96             | 25             | 2.0          | 170      |
| MC20-100K-RC       | 10              | 10            | 30     | 2.52             | 23             | 2.1          | 150      |
| MC20-120K-RC       | 12              | 10            | 30     | 2.52             | 20             | 2.5          | 140      |
| MC20-150K-RC       | 15              | 10            | 30     | 2.52             | 19             | 2.8          | 130      |
| MC20-180K-RC       | 18              | 10            | 30     | 2.52             | 17             | 3.3          | 120      |
| MC20-220K-RC       | 22              | 10            | 30     | 2.52             | 16             | 3.7          | 110      |
| MC20-270K-RC       | 27              | 10            | 30     | 2.52             | 14             | 5.0          | 80       |
| MC20-330K-RC       | 33              | 10            | 30     | 2.52             | 13             | 5.6          | 70       |
| MC20-390K-RC       | 39              | 10            | 30     | 2.52             | 12             | 6.4          | 65       |
| MC20-470K-RC       | 47              | 10            | 30     | 2.52             | 10             | 7.0          | 60       |
| MC20-560K-RC       | 56              | 10            | 30     | 2.52             | 9              | 8.0          | 55       |
| MC20-680K-RC       | 68              | 10            | 30     | 2.52             | 9              | 9.0          | 50       |
| MC20-820K-RC       | 82              | 10            | 30     | 2.52             | 8              | 10           | 45       |
| MC20-101K-RC       | 100             | 10            | 20     | 0.796            | 7              | 10           | 40       |
| MC20-121K-RC       | 120             | 10            | 20     | 0.796            | 7              | 11           | 70       |
| MC20-151K-RC       | 150             | 10            | 20     | 0.796            | 6              | 15           | 65       |
| MC20-181K-RC       | 180             | 10            | 20     | 0.796            | 6              | 17           | 60       |
| MC20-221K-RC       | 220             | 10            | 20     | 0.796            | 5              | 21           | 50       |
| MC20-271K-RC       | 270             | 10            | 20     | 0.798            | 6              | 22           | 45       |
| MC20-331K-RC       | 330             | 10            | 20     | 0.796            | 5              | 34           | 40       |

Available in tighter tolerances.

All specifications subject to change without notice.

## Features

- 1210 Molded Chip Inductor
- Excellent Solder Heat Resistance
- Terminals have high resistance to pull forces

## Electrical

**Inductance Range:** .01μH ~ 330μH

**Tolerance:** 10% over entire range

Also available in 5%

**Test Frequency:**

.01μH ~ .1μH measured at 100Mhz,

.12μH ~ .82μH measured at 25.2Mhz,

1μH ~ 8.2μH measured at 7.96Mhz,

10μH ~ 82μH measured at 2.52Mhz,

100μH ~ 470μH measured at .796Mhz,

**Operating Temp:** -25°C ~ +85°C @ 75% RH

**IDC:** The current at which inductance will drop no more than 10% of it's original value.

## Resistance to Soldering Heat

Pre-heating: 150°C, 1min

Solder Composition: Sn/Pb 63/37

Solder Temperature: 260 ± 5°C

Immersion Time: 10 ± 1sec, with no damage

## Physical

**Packaging:** 2000 pieces per 7 inch reel.

**Marking:** EIA Inductance code