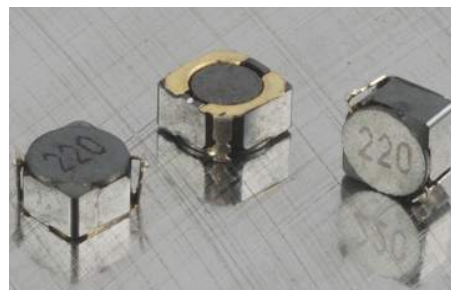
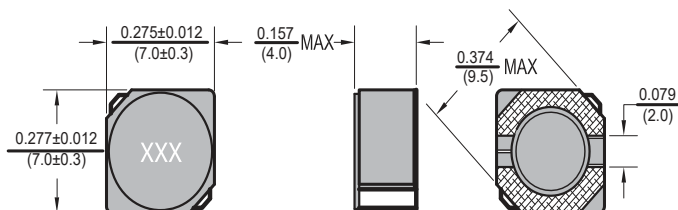




# Power Chip Shielded Inductors PCS6D38

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



| Allied Part Number | Inductance (μH) | Tolerance (± %) | Test Freq. KHz, 0.1V | RDC (Ω) Max. | Rated Current (A) |
|--------------------|-----------------|-----------------|----------------------|--------------|-------------------|
| PCS6D38-2R2N-RC    | 2.2             | 30              | 10                   | .018         | 3.8               |
| PCS6D38-2R7N-RC    | 2.7             | 30              | 10                   | .020         | 3.6               |
| PCS6D38-3R3N-RC    | 3.3             | 30              | 10                   | .020         | 3.5               |
| PCS6D38-4R7N-RC    | 4.7             | 30              | 10                   | .022         | 3.1               |
| PCS6D38-5R0N-RC    | 5.0             | 30              | 10                   | .024         | 2.9               |
| PCS6D38-5R6N-RC    | 5.6             | 30              | 10                   | .027         | 2.5               |
| PCS6D38-6R2N-RC    | 6.2             | 30              | 10                   | .027         | 2.5               |
| PCS6D38-6R8N-RC    | 6.8             | 30              | 10                   | .031         | 2.3               |
| PCS6D38-7R4N-RC    | 7.4             | 30              | 10                   | .031         | 2.3               |
| PCS6D38-8R7N-RC    | 8.7             | 30              | 10                   | .034         | 2.2               |
| PCS6D38-100N-RC    | 10              | 30              | 10                   | .038         | 2.0               |
| PCS6D38-120N-RC    | 12              | 30              | 10                   | .053         | 1.7               |
| PCS6D38-150N-RC    | 15              | 30              | 10                   | .057         | 1.6               |
| PCS6D38-180N-RC    | 18              | 30              | 10                   | .092         | 1.5               |
| PCS6D38-220N-RC    | 22              | 30              | 10                   | .096         | 1.3               |
| PCS6D38-270N-RC    | 27              | 30              | 10                   | .109         | 1.2               |
| PCS6D38-330N-RC    | 33              | 30              | 10                   | .124         | 1.1               |
| PCS6D38-390N-RC    | 39              | 30              | 10                   | .138         | 1.0               |
| PCS6D38-470N-RC    | 47              | 30              | 10                   | .150         | .95               |
| PCS6D38-560N-RC    | 56              | 30              | 10                   | .202         | .85               |
| PCS6D38-680N-RC    | 68              | 30              | 10                   | .234         | .75               |
| PCS6D38-820N-RC    | 82              | 30              | 10                   | .324         | .70               |
| PCS6D38-101N-RC    | 100             | 30              | 10                   | .358         | .65               |
| PCS6D38-561N-RC    | 560             | 30              | 10                   | 1.8          | .22               |

Indicate desired tolerance by inserting the appropriate tolerance identifier in the part number. Use "M" for 20% and "N" for 30%. All specifications subject to change without notice.

## Features

- Shielded SMD Power Inductor
- Low DC resistance
- Ideal for DC-DC converter applications

## Electrical

**Inductance Range:** 2.2μh to 560μh

**Tolerance:** 30% over entire range

Also, available in tighter tolerances

**Operating Temp:** -30°C ± 100°C

**Rated Current:** DC current that will cause L drop approximately 35% over its nominal value or DC current cause the temperature rising approximately 40°C, whichever is lower.

## Resistance to Soldering Heat

**Pre-Heat:** 150°C, 1 Min.

**Solder Composition:** Sn/Ag3.0/Cu0.5

**Solder Temp:** 260°C ± 5°C for 10 sec. ± 1 sec.

## Test Equipment

**(L):** HP4284A LF Impedance Analyzer

**(RDC):** Chen Hwa 502

**Rated Current:** HP4284+HP42841A or Chen Hwa 1061 + Chen Hwa 301A

## Physical

**Packaging:** 1000pcs per 13 inch reel

**Marking:** EIA Inductance Code

## Recommended PCB layout

