



Features

- Requires 64 % less space than 0402-size resistor
- RoHS compliant*
- Power rating at 70 °C = 1/20 W
- Three layer termination process with nickel barrier prevents leaching and provides excellent solderability
- Suitable for most types of soldering processes
- Standard packaging on paper tape and reel

CR0201 - Chip Resistor

Electrical Characteristics

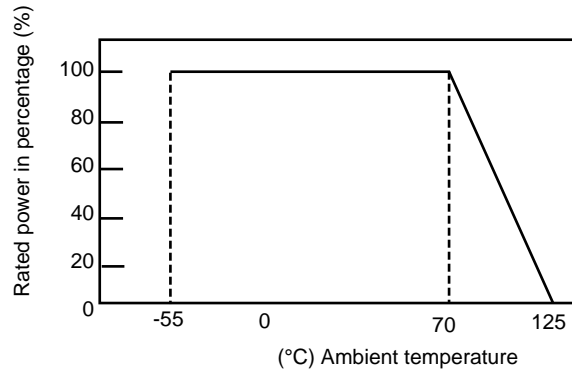
Power Rating @ 70 °C 1/20 W
 Operating Temperature Range -55 °C to +125 °C
 Derated to 0 Load at +125 °C
 Maximum Working Voltage 25 V
 Maximum Overload Voltage 50 V
 Resistance Range
 1 %, E-96
 and E-24 10 ohms to 2 megohms
 5 %, E-24 10 ohms to 10 megohms
 Zero Ohm Jumper <0.05 ohms
 Temperature Coefficient
 1 % and 5 % ±200 ppm/°C
 Zero Ohm Jumper N/A
 Zero Ohm Jumper
 Rated Current 0.5 A
 Maximum Overload Current 1 A
 AEC-Q200 Contact Bourns to confirm availability

For Standard Values Used in Capacitors, Inductors, and Resistors, [click here](#).

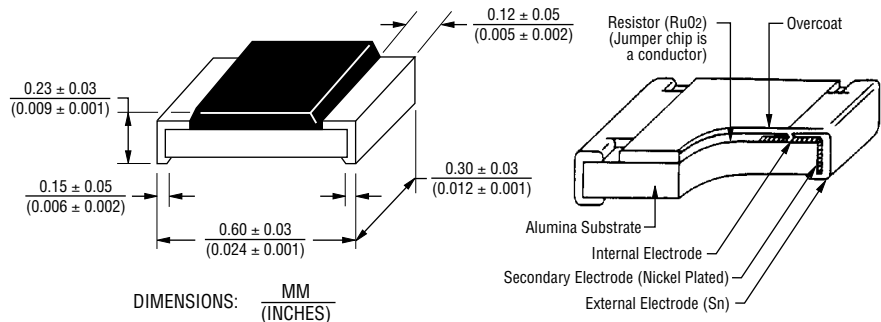
Part Marking System

No Marking on the CR0201 Chip Resistors.

Derating Curve



Dimensional Drawings



How to Order

Model _____ **CR 0201 - F W - 8252 G LF**
 (CR = Chip Resistor)
 Size _____
 • 0201
 Resistance Tolerance _____
 F = ±1 % For values from 10 ohms through 2 megohms
 J = ±5 % For values from 10 ohms through 10 megohms, and for zero ohm jumper
 TCR (ppm/°C) _____
 W = ±200 Used with "F" and "J" Resistance Tolerance code for all values except zero ohm jumper
 / = N/A Used with zero ohm jumper only
 Resistance Value _____
 For 1 % Tolerance:
 <100 ohms "R" designates decimal point (example: 24R3 = 24.3 ohms)
 ≥100 ohms First three digits are significant, fourth digit represents number of zeros to follow (example: 8252 = 82.5k ohms)
 For 5 % Tolerance:
 ≥10 ohms First two digits are significant, third digit represents number of zeros to follow (example: 474 = 470k ohms; 000 = Jumper)
 Packaging _____
 G = Paper Tape (10,000 pcs.) on 7-inch Plastic Reel
 Termination _____
 LF = Tin-plated (RoHS compliant)



WARNING
Cancer and Reproductive Harm
www.P65Warnings.ca.gov

*RoHS Directive 2015/863, Mar 31, 2015 and Annex.
 Specifications are subject to change without notice.
 Users should verify actual device performance in their specific applications.
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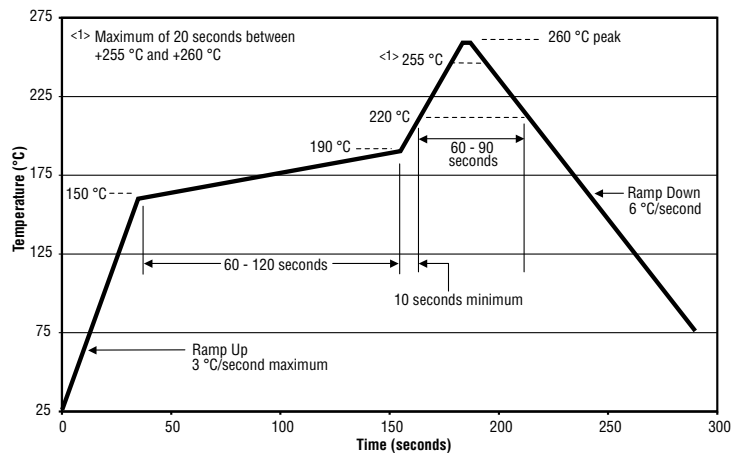
CR0201 - Chip Resistor

BOURNS®

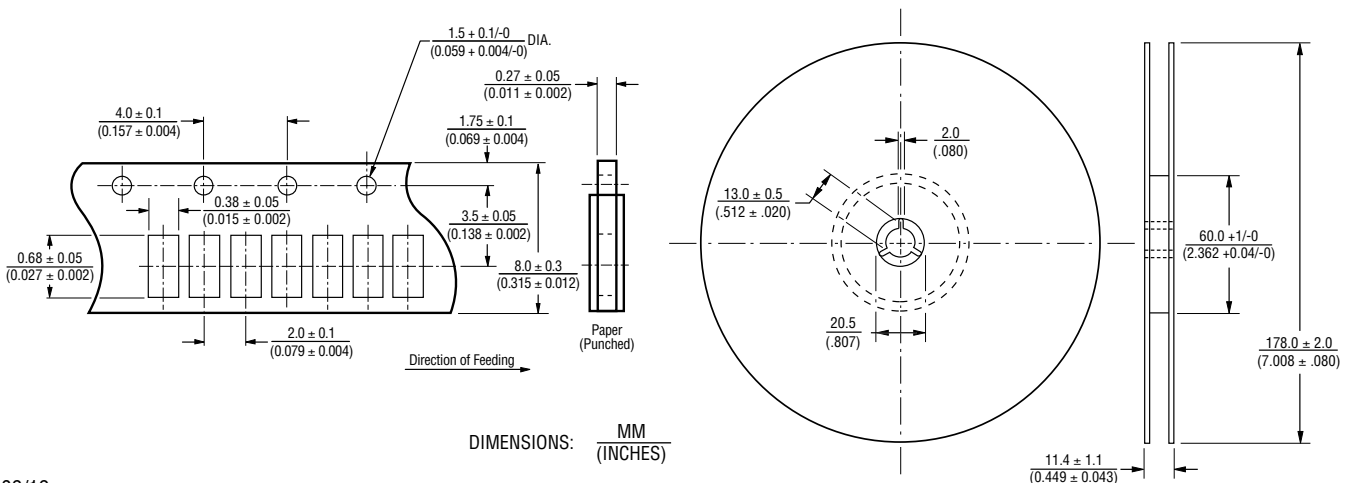
Performance Characteristics

| Test | Procedure | Method | Test Limits ΔR |
|---------------------------------|--|-------------------|--------------------------------|
| Thermal Shock | -55 °C for 30 minutes, +155 °C for 30 minutes, 5 cycles | IEC60115-1-4.19 | $\leq \pm(3\% + 0.1 \Omega)$ |
| Short Time Overload | 2.5 X rated voltage for 5 seconds | IEC60115-1-4.13 | $\leq \pm(3\% + 0.1 \Omega)$ |
| Resistance to Solder Heat | 270 ± 5 °C for 10 ± 1 seconds | IEC60115-1-4.18 | $\leq \pm(3.0\% + 0.1 \Omega)$ |
| Resistance to Dry Heat | 125 ± 5 °C for 96 ± 4 hours | IEC60115-1-4.23.2 | $\leq \pm(2.0\% + 0.1 \Omega)$ |
| Load Life | Rated voltage for 1000 hours, 70 °C, 1.5 hours "ON", 0.5 hours "OFF" | IEC60115-1-4.25.1 | $\leq \pm(5.0\% + 0.1 \Omega)$ |
| Load Life with Humidity | Rated voltage for 1000 hours, 40 ± 2 °C, 90~95 % RH, 1.5 hours "ON", 0.5 hours "OFF" | IEC60115-1-4.24 | $\leq \pm(5.0\% + 0.1 \Omega)$ |
| Solderability | 245 ± 5 °C, 2 ± 0.5 seconds | IEC60115-1-4.17 | $\geq 95\%$ of area covered |
| Bending | 3 mm | IEC60115-1-4.33 | $\leq \pm(1.0\% + 0.1 \Omega)$ |
| Dielectric Withstanding Voltage | -- | IEC60115-1-4.7 | > 50 V |
| Insulation Resistance | 50 V | IEC60115-1-4.6 | ≥ 1 G Ω |

Soldering Profile for RoHS Compliant Chip Resistors and Arrays



Packaging Dimensions (Conforms to EIA RS-481A)



09/19

Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications.

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