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

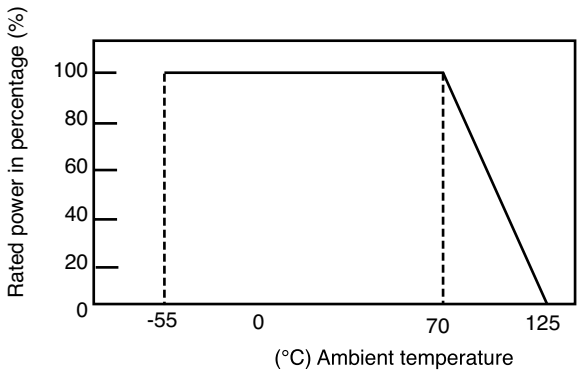
Power Rating @ 70 °C ..... 1/20 W
Operating Temperature Range
..... -55 °C to +125 °C
Derated to 0 Load at .....+125 °C
Maximum Working Voltage.....25 V
Maximum Overload Voltage .....50 V
Resistance Range
1 %, E-96
and E-24 .....10 ohms to 2 megohms
5 %, E-24....10 ohms to 10 megohms
Zero Ohm Jumper.....<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.

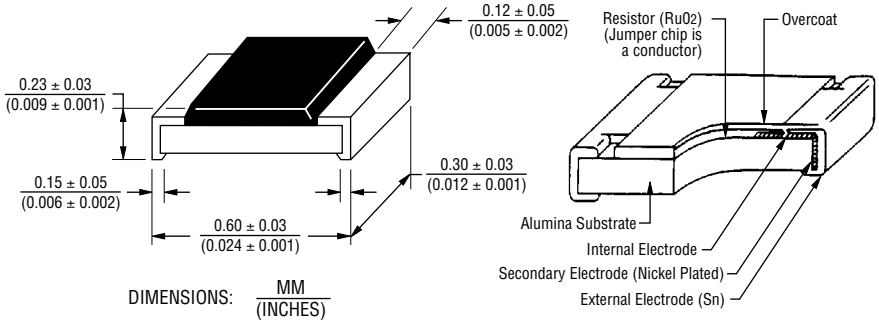
Part Marking System

No Marking on the CR0201 Chip Resistors.

Derating Curve



Dimensional Drawings



How to Order

CR 0201 - F W - 8252 G LF

Model
(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

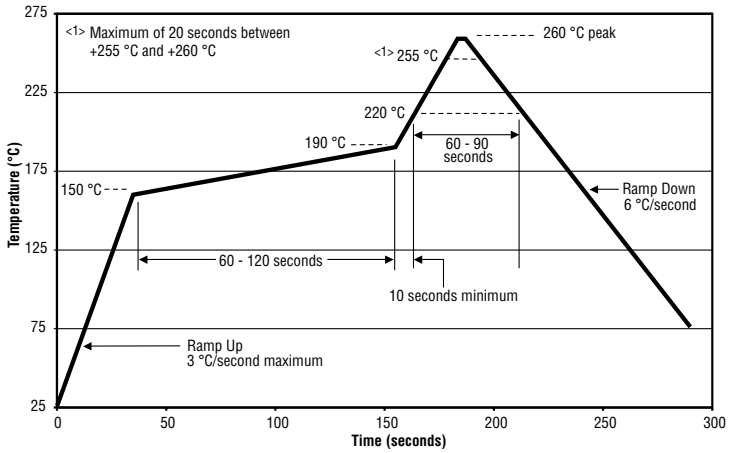
Termination
LF = Tin-plated (RoHS compliant)

*RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011.
Specifications are subject to change without notice.
The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time.
Users should verify actual device performance in their specific applications.

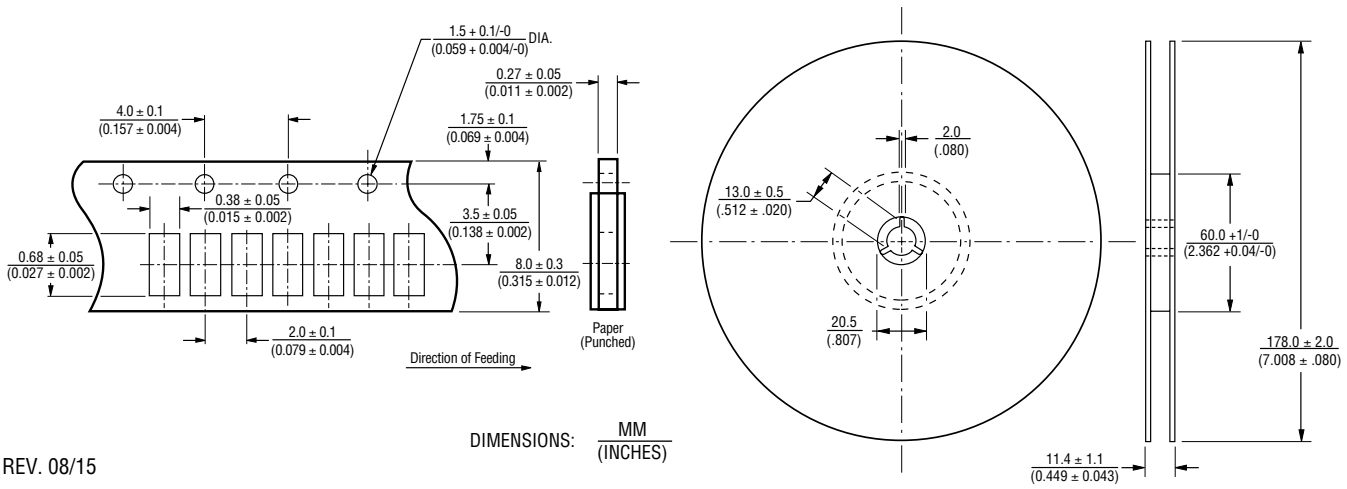
Performance Characteristics

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

Soldering Profile for RoHS Compliant Chip Resistors and Arrays



Packaging Dimensions (Conforms to EIA RS-481A)



DIMENSIONS: MM / (INCHES)

REV. 08/15