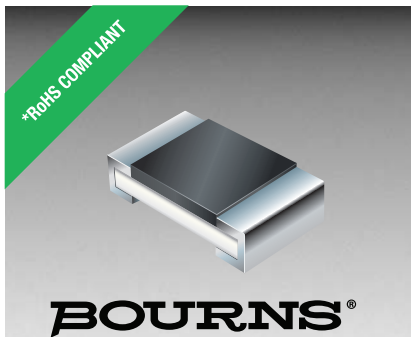




Features

- RoHS compliant*
- Small package dimensions
- Power rating at 70 °C = 0.03 W
- Three layer termination process with nickel barrier helps prevent leaching and provides excellent solderability



This series is currently available but not recommended for new designs.

CR01005-AS Series - Sulfur-Resistant Thick Film Chip Resistors

General Characteristics

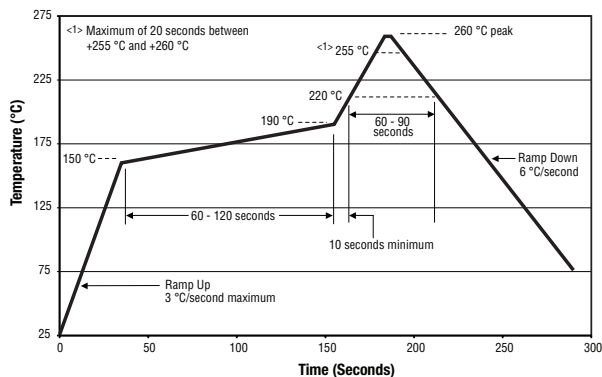
Characteristic	CR01005-AS
Power Rating @ 70 °C per Resistor	0.03 W
Resistor Tolerance	±1 %, ±5 %
Resistance Range - 1 % Tolerance (E24 + E96)	10 ohms to 1 megohm
Resistance Range - 5 % Tolerance (E24), Zero-ohm Jumper	10 ohms to 1 megohm 0 ohms
Temperature Coefficient of Resistance (TCR) 1 %, 5 % Tolerance Zero-ohm Jumper	±250 ppm/°C N/A
Maximum Overload Voltage	15 V
Maximum Working Voltage	30 V
Operating Temperature Range	-55 to +125 °C
Storage Conditions	+5 ~ +40 °C, 25~75 % RH, 1 year
Derating Temperature	+70 °C
Packaging Embossed Tape	40,000 pcs. per reel
Zero-ohm Jumper: Current Rating Maximum Resistance	0.3 A per element 100 milliohms

Environmental Characteristics

Specification	Test Method (JIS C 5201-1)	Characteristics
Short Time Overload	Rated voltage x 2.5, 5 seconds	±(2 % +0.1 ohm)
Soldering Heat	+260 °C ±5 °C, 10 ±1 seconds	±(2 % +0.1 ohm)
Temperature Cycling	-55 °C (30 minutes) - normal (2~3 minutes) +125 °C (30 minutes) - normal (2~3 minutes), 5 cycles	±(5 % +0.05 ohm)
Moisture Load Life	+40 °C, 90~95 % RH, 1000 hours, 1.5 hours ON, 0.5 hours OFF	±(5 % +0.1 ohm)
Load Life	+70 °C, 1000 hours, 1.5 hours ON, 0.5 hours OFF	±(5 % +0.1 ohm)
Sulfur Test	3 ppm H ₂ S, +50 °C, 90~95 % RH, 100 hours	±(5 % +0.1 ohm)

NOTE: Zero-ohm jumper ≤100 milliohms.

Soldering Profile

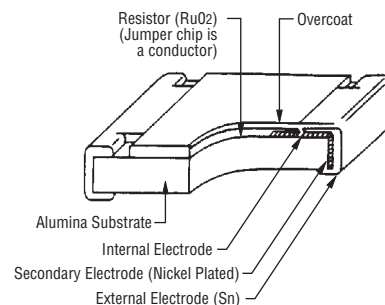


How To Order

CR 01005 - F W - 1002 H AS
Chip Resistor
Size
• 01005
Tolerance
• F = 1 %
• J = 5 %
TCR (ppm/°C)
• W = ±250
• / = N/A (for Jumper)
Resistance Code
• 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:
"R" designates decimal point
(example: 4R7 = 4.7 ohms)
≥10 ohms:
First two digits are significant,
third digit represents number of
zeros to follow
(example: 474 = 470K ohms;
000 = Zero-ohm jumper)
Packaging
• H = Embossed Tape
(40,000 pcs. on 7-inch plastic reel)
Special Characteristics
• AS = Sulfur-resistant, Tin-plated terminations
(RoHS compliant)

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

Construction



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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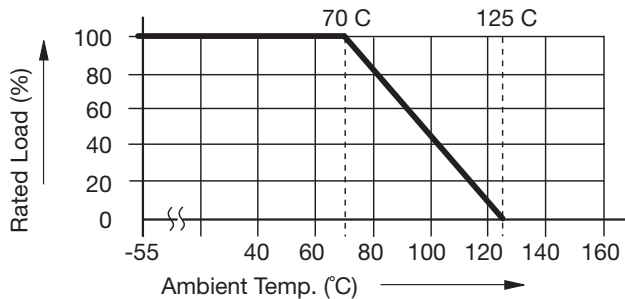
Features (Continued)

- Suitable for most types of soldering processes
- Standard packaging on paper tape and reel
- Sulfur-resistant design

CR01005-AS Series - Sulfur-Resistant Thick Film Chip Resistors

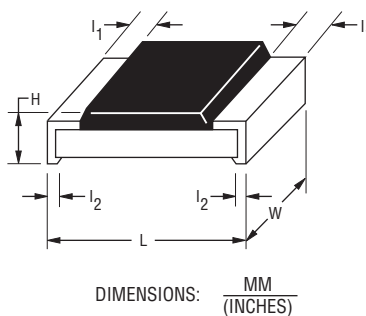
BOURNS®

Derating Curve



Product Dimensions

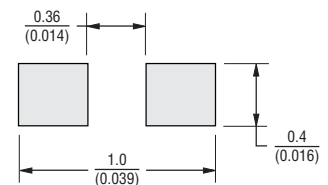
Dim.	CR01005-AS
L	$\frac{0.40 \pm 0.02}{(0.016 \pm 0.001)}$
W	$\frac{0.20 \pm 0.02}{(0.008 \pm 0.001)}$
H	$\frac{0.13 \pm 0.02}{(0.005 \pm 0.001)}$
l_1	$\frac{0.10 \pm 0.03}{(0.004 \pm 0.001)}$
l_2	$\frac{0.10 \pm 0.03}{(0.004 \pm 0.001)}$



Typical Part Marking

..... No Marking

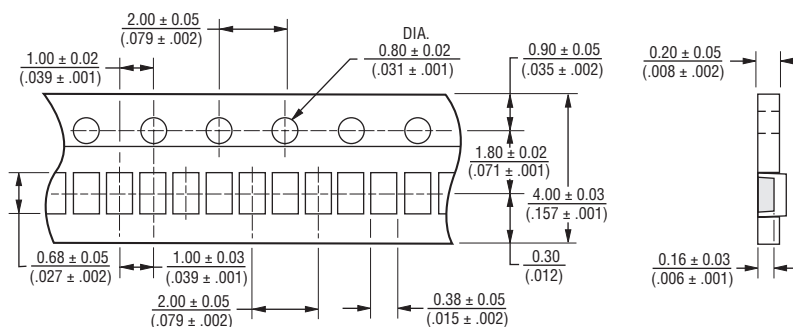
Recommended Land Pattern



Packaging Specifications

Embossed Tape

Reel Diameter: $\frac{180}{(7.087)}$



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REV. 06/20

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