

BOURNS®**Metal strip Current Sense Resistor**

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RoHS Compliant, Lead-free, Halogen-Free

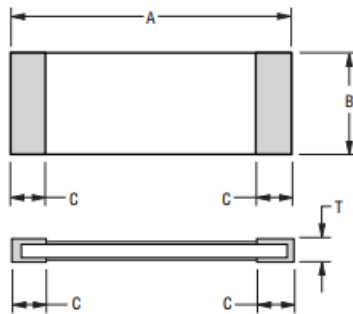
AEC-Q200 Compliant

PRELIMINARY**Features**

Type	CRG2512
Power Rating	1W, 2W
Resistance Value	110mΩ to 500mohms
Operation Temperature Range	-55°C ~ +170°C
Temperature Coefficient of Resistance	± 50ppm/°C
Tolerance	±1%, 5%
Insulation Resistance	Over 100MΩ
Maximum Working Voltage(V)	$\sqrt{(P \times R)}$
Flammability	UL94-V0

Note: 3 Watts with total solder pad and trace size of 300mm² and board surface temperature should not exceed 105°C

Resistive alloy may vary form resistance value.

Dimension (mm):

Dimension	A	B	T	C
SPEC (mm)	6.4±0.2	3.2±0.2	0.7±0.2	0.9±0.2

Unit: mm

*: please consult factory for other unlisted information.

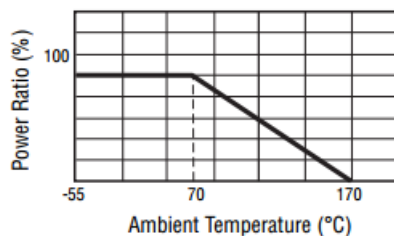
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Reliability Tests

Test Items	Condition of Test	Test Limits
Temperature Coefficient of Resistance	+25°C ~ +155°C	± 50ppm/°C
High Temperature Exposure	125°C, 1000hrs	±1.0%
Low temperature operation	-55 °C, 45 minutes	±0.5%
Temperature cycle	-55°C /+125°C, 1000 cycles	±0.5%
Short Time Overload	5 x rate power for 5s	±0.5%
Bias Humidity	1000h, 85°C/85%RH, 10% rate power	±0.5%
Load Life	70°C Rated voltage 1.5h on, 0.5h off, 1000h	±1.0%
Resistance to Soldering Heat	260°C±5°C for 10s±1s	±0.5%
Mechanical shock	100g's, half-sine, 6ms	±0.5%
Vibration	5g's 20minutes, 12cycles each of 3 orientations, 10~2,000Hz	±0.5%
Board Flex	2mm, 60 seconds	±0.5%
Flammability	UL94 V-0 or V-1, Electrical test not required	

Derating Curve



Rated Current & Voltage

The rated Current and Voltage are calculated by the following formula:

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$$I = \sqrt{P \div R}$$

$$V = \sqrt{P \times R}$$

I: Rated Current(I)

V: Rated Voltage(V)

P: Rated Power(W)

R: Resistance Value(Ω)

Packaging

Emboss Tape & Reel

Reel Size: 7"

4,000pcs/Reel

Standard: EIA-481

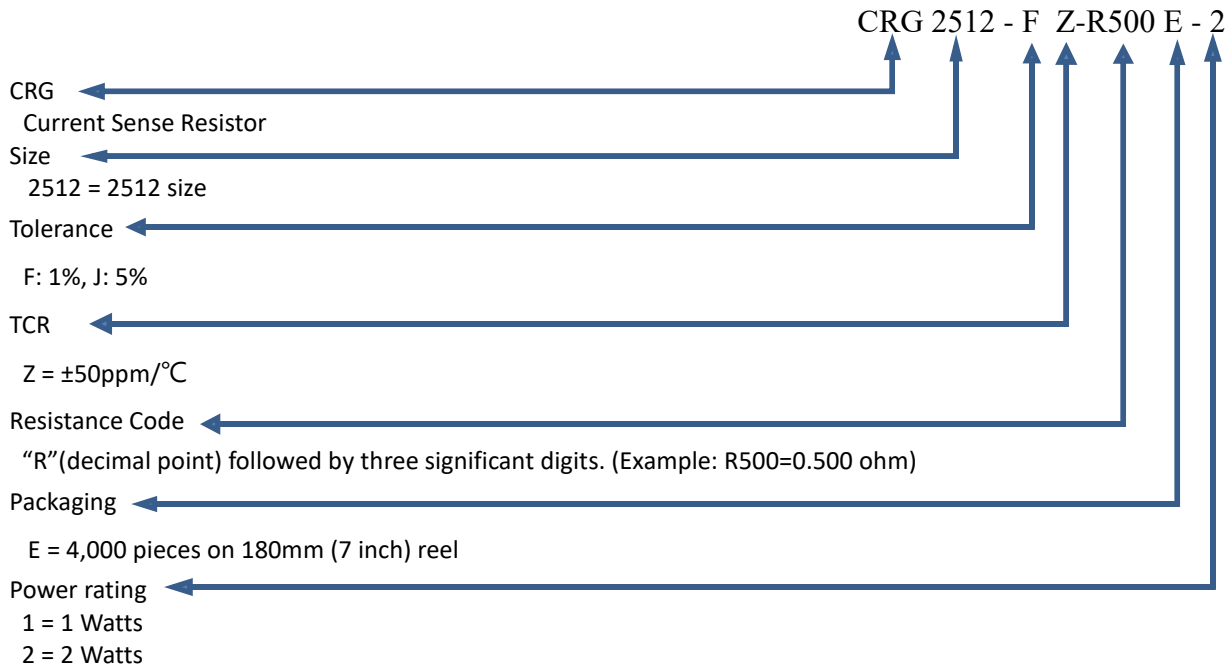
Storage Conditions:

Temperature: 5°C~35°C, Humidity: 40%~75%

Shelf Life:

2 year from manufacturing date.

How To Order



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