

Type 3521 Series

Key Features

2 Watts at
70°C

Small size to
power ratio

Supplied on
tape

Value marked
on resistor

Available via
distribution

500 volt
maximum
overload

250 volt
working
voltage

Terminal finish
matte Sn over
Ni



TE Connectivity is pleased to introduce this low cost high power device, suitable for auto placement in volume, and for most applications, including high frequency operations, owing to the short lead structure. It is attractively priced and available on 7" reels of 4000 pieces.

Characteristics – Electrical

| | |
|-------------------------|---|
| Power rating at 70°C | 2W |
| Max RCWV* | 250V |
| Max overload voltage | 500V |
| Resistance Tolerance | 1% |
| Resistance range | 1R0 - 1M0 |
| Temperature Coefficient | <10R ±200PPM 10R – 1M0 ±100PPM >1M0 ±200PPM |
| Temperature range | -55°C ~ +155°C |
| Ambient temperature | 70°C |

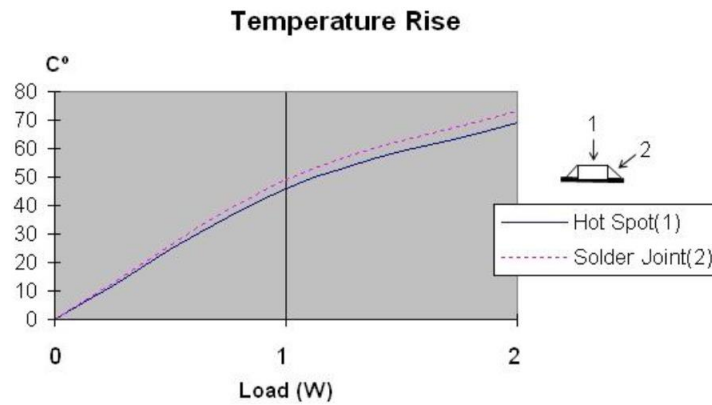
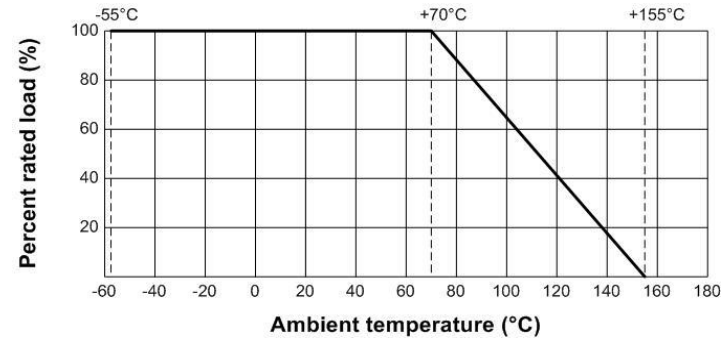
* Rated continuous working voltage (RCWV) shall be determined from

RCWV = Rated Power x Resistance Value, or Maximum RCWV listed above, whichever is less

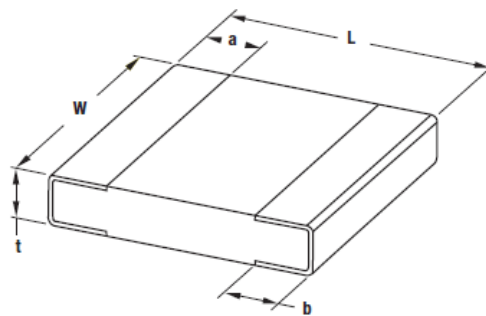
**Recommended Circuit Board Design - If this device is anticipated to run at full continuous power then action to improve the cooling should be taken. This can be a metal substrate, copper pad left under the chip, an opening in the PCB or enlarged silver conductor pads each end.

Power derating curve

For resistors operated in ambient temperatures above 70°C, power rating must be derated in accordance with this curve.



Dimensions



| | | | | |
|--------------|--------------|--------------|--------------|--------------|
| $L \pm 0.10$ | $W \pm 0.15$ | $t \pm 0.10$ | $a \pm 0.25$ | $b \pm 0.20$ |
| 6.35 | 3.20 | 0.55 | 0.60 | 0.50 |

Marking:

Marking for E-96 series in 2512 size: 4 digit marking

First three digits are significant figures of resistance and the fourth digit represents the number of following zeros

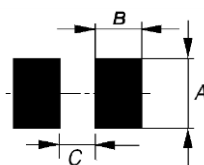
Ex.

| | | | |
|--|------|--|---------------|
| | 1003 | | 100K Ω |
|--|------|--|---------------|

*For ohmic values below 100 Ω , letter "R" is for decimal point.

| | | | |
|--|------|--|---------------|
| | R330 | | 0.33 Ω |
|--|------|--|---------------|

Recommended PCB layout



| A | B | C |
|------|------|------|
| 3.70 | 2.45 | 2.70 |

4 layers PCB specification:

- 1) Outside 2 layers (Top and Bottom) with copper foil thickness at 2oz.
- 2) Inside 2 layers (Middle layers) with copper foil thickness at 4 oz.

How To Order

| 3521 | 1K0 | F | T |
|-------------|---|-----------|---------------|
| Common Part | Resistance Value | Tolerance | Pack Style |
| 3521 | 1 ohm 1R0 1K ohm 1000 ohms 1K0 1 Meg ohm 1000000 ohms 1M0 | F – 1% | T – 4000 reel |

Mouser Electronics

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