

## Type 3521 Series

### Key Features

- 2 Watts at 70°C
- Small Size to Power Ratio
- Supplied on Tape
- Available via Distribution
- Value Marked on Resistor
- 500 Volt Maximum Overload
- 250 Volt Working Voltage
- Low Profile
- 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

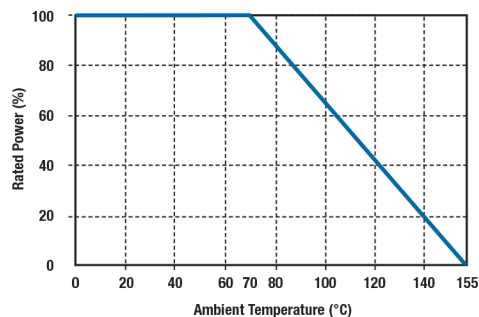
<b>Power Rating:</b>	2 Watts at 70°C**
<b>Max. RCWV*:</b>	250V
<b>Max. Overload Voltage:</b>	500V
<b>Resistance Tolerance(%):</b>	±1%
<b>Resistance Range:</b>	1R0 - 1M0
<b>Temperature Coefficient:</b>	<10R = ±200PPM 10R - 1M0 = ±100PPM >1M0 = ±200PPM
<b>Operating Temperature:</b>	-55°C - 155°C

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

$$RCWV = \sqrt{\text{Rated Power} \times \text{Resistance Value}}, \text{ or Maximum RCWV listed above, whichever is less}$$

\*\* 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.

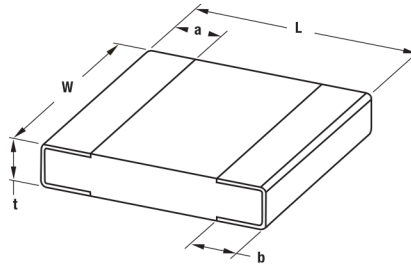
### Power Derating Curve



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

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### Dimensions



L	W	a	b	t
6.35 ±0.10	3.20 ±0.15	0.60 ±0.25	1.80 ±0.20	0.55 ±0.10

### Marking

4 digit marking system. First three digits are significant figures of resistance, fourth denotes number of zeros eg. 3302 = 33K – 33,000Ω.

For values below 10Ω the letter R is used as decimal point eg. 1R20 = 1R2 = 1.2Ω

### Handling Recommendations

When flow soldering - the land width must be smaller than the Chip Resistor width to properly control the solder application. Generally, the land width can be Chip Resistor width (W) x 0.7 to 0.8. When reflow soldering - solder application amount can be adjusted. Thus the land width can be set to W x 1.0 to 1.3.

### How to Order

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