

## 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

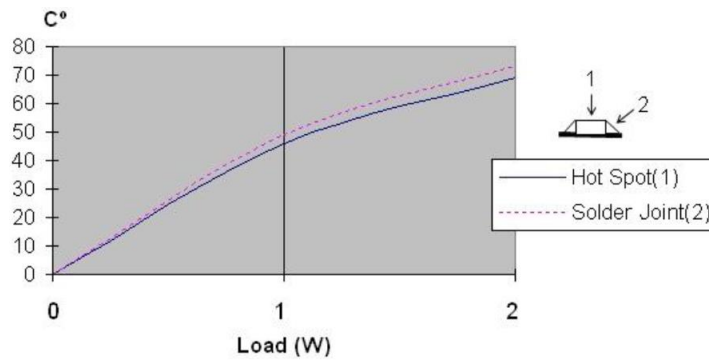
\*\*Recommended Circuit Board Design - If this device is anticipated to run at full continuous power then action to improve the cooling should be taken. This can be a metal substrate, copper pad left under the chip, an opening in the PCB or enlarged silver conductor pads each end.

### Power derating curve

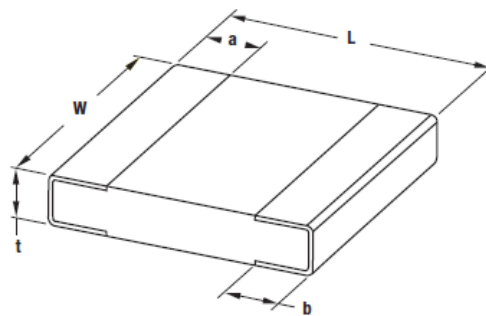
For resistors operated in ambient temperatures above 70°C, power rating must be derated in accordance with this curve.



### Temperature Rise



### Dimensions



L ± 0.10	W ± 0.15	t ± 0.10	a ± 0.25	b ± 0.20
6.35	3.20	0.55	0.60	0.50

Marking:

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

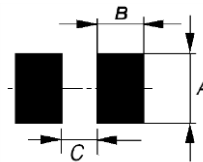
First three digits are significant figures of resistance and the fourth digit represents the number of following zeros



\*For ohmic values below 100  $\Omega$ , letter "R" is for decimal point.



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