

## Type 3522 Series

### Key Features

**3 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. Supplied as standard on 7 inch Reels of 2000 pieces per reel.

### Characteristics – Electrical

|                                |                |
|--------------------------------|----------------|
| Power rating at 70°C           | 3W             |
| Rated current (Jumper)         | 2.5A           |
| Max. overload current (Jumper) | 10A            |
| Max working voltage            | 250V           |
| Max overload voltage           | 500V           |
| Dielectric withstand voltage   | 500V           |
| Temperature range              | -55°C ~ +155°C |
| Ambient temperature            | 70°C           |

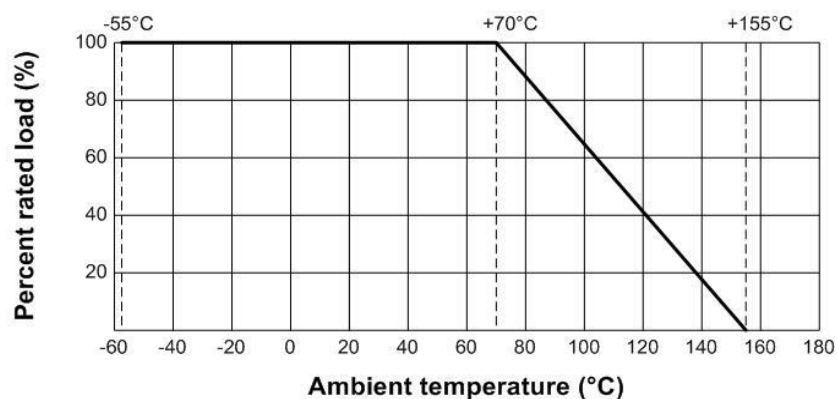
\* Rated continuous working voltage (RCWV) shall be determined from

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

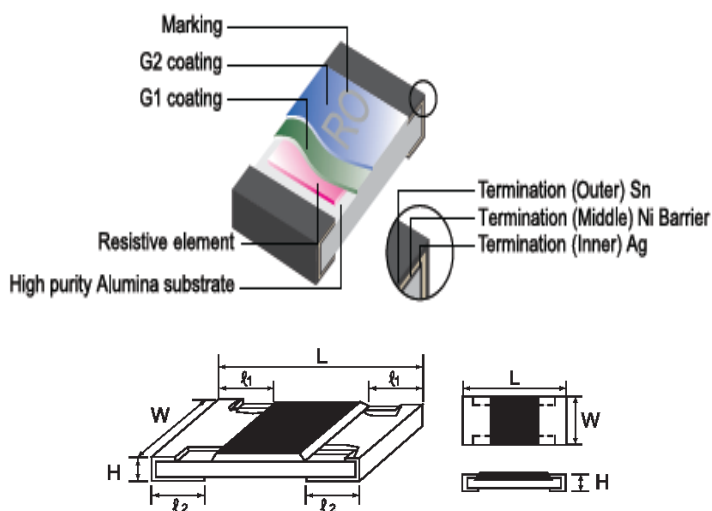
\*\*Recommended Circuit Board Design - If this device is anticipated to run at full continuous power then action to improve the cooling should be taken. This can be a metal substrate, copper pad left under the chip, an opening in the PCB or enlarged silver conductor pads each end.

## Power derating curve

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



## Construction and dimensions



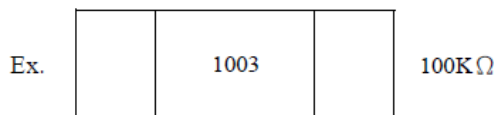
|              |              |              |                |                |
|--------------|--------------|--------------|----------------|----------------|
| $L \pm 0.10$ | $W \pm 0.15$ | $H \pm 0.10$ | $l_1 \pm 0.25$ | $l_2 \pm 0.20$ |
| 6.35         | 3.20         | 1.10         | 0.60           | 1.80           |

| Power rating @70°C | Tolerance % | Resistance Range | Standard series |
|--------------------|-------------|------------------|-----------------|
| 3W                 | Jumper      | <50mΩ            |                 |
|                    | ± 1%        | 10Ω - 1MΩ        | E96             |
|                    | ± 5%        | 10Ω - 10MΩ       | E24             |

## Marking:

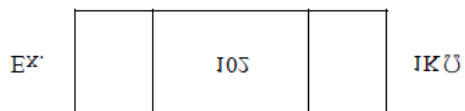
Marking for E-96 series in 2512 size: 4 digit marking

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



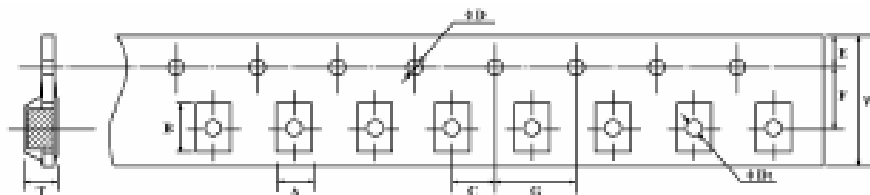
Marking for E-24 series in 2512 size: 3 digit marking

First two digits are significant figures, and the third digit represents the number of zeros



## Packing specification:

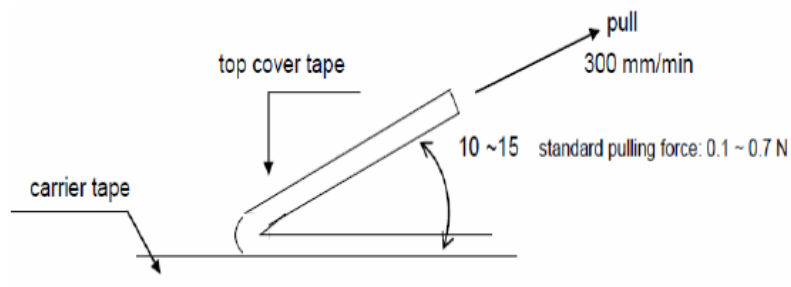
Taping dimensions (mm)



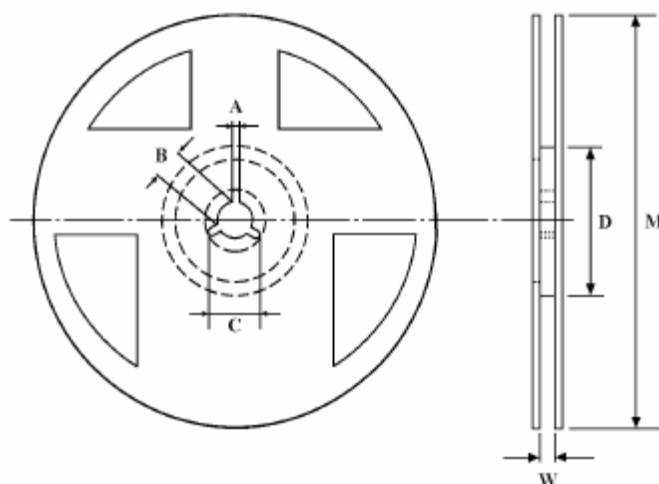
| A     | B     | C     | ØD         | E     | F     | G    | W     | ØD1        | T    |
|-------|-------|-------|------------|-------|-------|------|-------|------------|------|
| ±0.20 | ±0.20 | ±0.05 | +0.1<br>-0 | ±0.10 | ±0.05 | ±0.1 | ±0.20 | +0.1<br>-0 | ±0.1 |
| 3.5   | 6.7   | 2.0   | 1.5        | 1.75  | 5.5   | 4.0  | 12    | 1.5        | 1.35 |

## Peeling strength of Top Cover Tape

Test Condition 0.1 to 0.7 N at a peel-off speed of 300mm / min.



Reel dimension (mm)



| Qty / Reel | A $\pm 0.5$ | B $\pm 0.5$ | C $\pm 0.5$ | D $\pm 1$ | M $\pm 2$ | W $\pm 1$ |
|------------|-------------|-------------|-------------|-----------|-----------|-----------|
| 2000       | 2           | 13.5        | 21          | 60        | 178       | 13.8      |

## 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

| 3522        | 1K0                                                             | F                | T             |
|-------------|-----------------------------------------------------------------|------------------|---------------|
| Common Part | Resistance Value                                                | Tolerance        | Pack Style    |
| 3522        | 1 ohm 1R0<br>1K ohm 1000 ohms 1K0<br>1 Meg ohm 1000000 ohms 1M0 | F – 1%<br>J – 5% | T – 2000 reel |

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[3522150RFT](#) [3522180KFT](#) [3522560KFT](#) [3522150KFT](#) [3522180KJT](#) [35221K2JT](#) [3522200RFT](#) [3522200KFT](#)  
[35222M7JT](#) [352213KFT](#) [3522240RFT](#) [352282KJT](#) [35222K7JT](#) [35227K5FT](#) [3522120RJT](#) [3522120KFT](#) [35222K7FT](#)  
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[35221K6FT](#) [3522220KJT](#) [352222KJT](#) [352251RFT](#) [35226M8JT](#) [3522620KFT](#) [35223K6FT](#)