

## Type 3204 Series

### Type 3204 Series



The 3204 miniature chip trimmer incorporates the latest technology developments and has been rigorously tested to the highest standards. Special attention during the design of the product, ensures that this component meets specific requirements of hybrids and modern surface mounting boards. It is fully sealed until you are ready to trim, so it is highly suitable for both dip and wave soldering. It can then be resealed by the use of rubber based lock paint.

### Key Features

- Cermet Element
- Suitable for Dip and Wave Soldering
- Available in Standard 12mm Tape
- Available from Stock
- Small, Compact Size (4mm Square)
- Terminal Layout Stops Solder Bridging
- Smooth Top Assists Placement

### Characteristics - Electrical

<b>Resistance Range:</b>	100R to 1M
<b>Standard Resistance Values:</b>	1, 2, 5 in each decade
<b>Resistance Tolerance:</b>	± 25%
<b>Temperature Coefficient of Resistance:</b>	± 250ppm / °C (-30°C to 100°C)
<b>Resistance Law:</b>	Linear
<b>Maximum Operating Voltage:</b>	50V DC or AC RMS maximum
<b>Resolution:</b>	Essentially Infinite
<b>Contact Resistance:</b>	<10R below 1K - <1% above 1K
<b>Power Rating:</b>	0.1W at 70°C
<b>Effective Electrical Angle:</b>	250° ± 20°

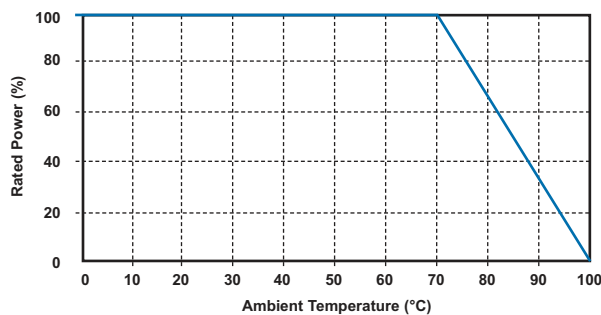
### Characteristics - Mechanical

<b>Rotational Torque:</b>	2 to 20 mNm
<b>Mechanical Adjustment:</b>	240°
<b>Weight:</b>	0.11 grams
<b>Soldering Strength:</b>	Horizontal 500gf minimum Vertical 500gf minimum

### Characteristics - Environmental

<b>Temperature Range:</b>	- 20°C to 85°C
<b>Temperature Storage:</b>	500 hours at 70°C
<b>Rotational Life:</b>	20 cycles
<b>Load Life:</b>	ΔR < 5% after 1000 hours
<b>Sealing:</b>	Sealed for 20 operations
<b>Soldering Heat:</b>	250°C ±5°C for 5 ± 1 seconds
<b>Humidity Load Life:</b>	ΔR ±5% after 500 hours at 95 RH under load
<b>High Temperature Rise:</b>	ΔR ± 5% after 500 hours at 100°C

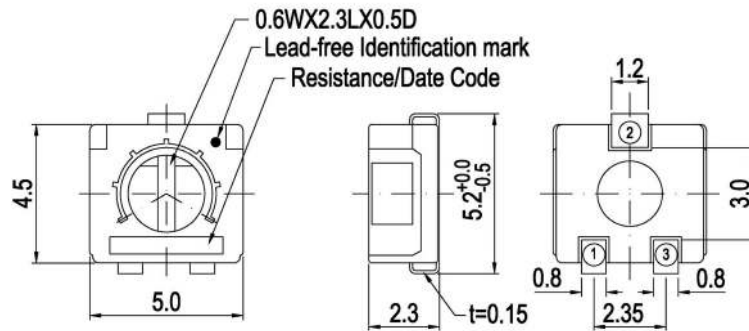
### Derating Curve



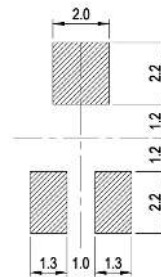
When the ambient temperature exceeds 70°C, reduce the rated power and current in accordance with the derating curve given

## Type 3204 Series

### Dimensions



### Substrate Layout



### Application Notes - Ambient Temperature

Care must be taken with regard to ambient temperature of potentiometers Load should be derated in accordance with specified derating curve, at high temperatures.

### Anode Oxidation

When D.C. current is used and the trimmer is to remain in one set position for a long period, it is good practice to connect the negative line to the resistance element and the positive line to the wiper terminal.

With the polarity reversed, particularly in moist conditions, it is possible for surface oxidation of the contact to cause a resistance increase.

### Storage

For maximum possible shelf life do not disturb polythene sleeve until you are ready to use the potentiometer.

### How to Order

