

Type 3204 Series

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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

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

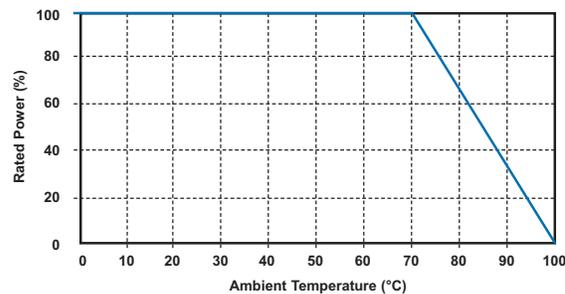
Characteristics - Mechanical

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

Characteristics - Environmental

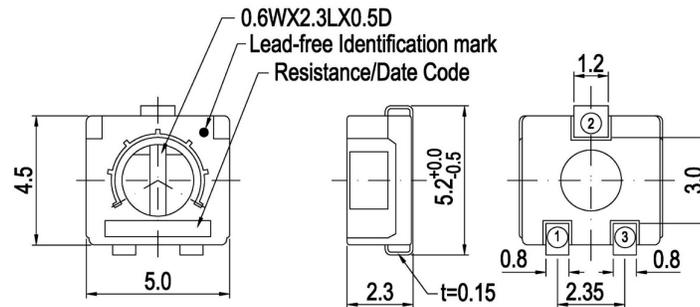
Temperature Range:	- 20°C to 85°C
Temperature Storage:	500 hours at 70°C
Rotational Life:	20 cycles
Load Life:	ΔR < 5% after 1000 hours
Sealing:	Sealed for 20 operations
Soldering Heat:	250°C ±5°C for 5 ± 1 seconds
Humidity Load Life:	ΔR ±5% after 500 hours at 95 RH under load
High Temperature Rise: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

Derating Curve

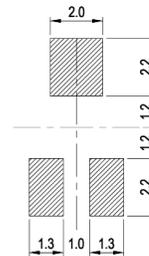


When the ambient temperature exceeds 70°C, reduce the rated power and current in accordance with the derating curve given

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

3204	X	502	P
Common Part	Orientation	Resistance Value	Tolerance
3204 - 4mm Sealed Trimmer	X - Terminals 1 and 3 away from the sprocket holes	The first two digits are significant figures of resistance value and the third denotes the number of zeros following. e.g. 1K: 102 5K: 502 100K: 104	P - 25 %