Type 3142 Series



A range of small single turn trimmers suited to reflow soldering and attractively priced for volume application. The 3142 is supplied on 12mm tape on 180mm diameter reels. This product is long established, having an excellent reputation for long term stability. It is readily available from our network of distributors.

Key Features

- Stable Cermet Element
- 0.15W Power Rating
- Packed in Standard 12mm Tape
- Suited to Auto Placement
- Temperature Range -25°C to +85°C
- Excellent Vacuum Pickup on Rotor
- Height Profile of Just 2.4mm from Board

Characteristics - Electrical

Resistance Range:	100R to 1M
Resistance Values:	1, 2 & 5 in each decade
Resistance Tolerance:	± 25%
Resistance Law:	Linear
Temperature Coefficient of Resistance:	± 250ppm/°C
Operating Voltage:	50 V DC maximum
Wiper Current:	50mA maximum
Resolution:	Infinite
Contact Resistance Variation:	<5% of Nominal Value
Power Rating:	0.15 Watts @ 70°C
Electrical Rotation:	270° ±10°
End Resistance:	5% maximum
Insulation Resistance:	100M (250V DC) minimum

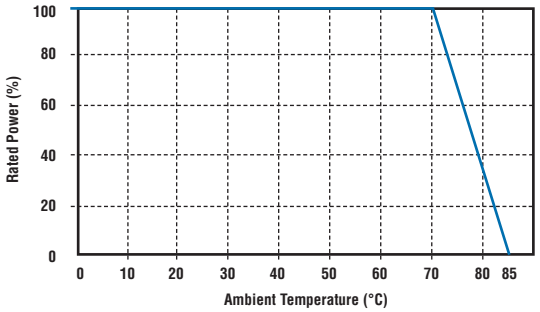
Characteristics - Mechanical

Rotation Torque:	2.0 - 20 mNm
Solder Strength:	300mNm (3 directions) minimum
Mechanical Rotation:	360° Continuous

Characteristics - Environmental

Operating Temperature Range:	-25°C to +85°C
Humidity Load Life:	350 hrs 40°C RH 90-95% ΔR ±5%
Load Life:	1000 hrs @ 70°C ΔR ±5%
Temperature Cycle:	ΔR ±3% -25°C ~ +85°C
Rotational Life:	10 ±10% cycles

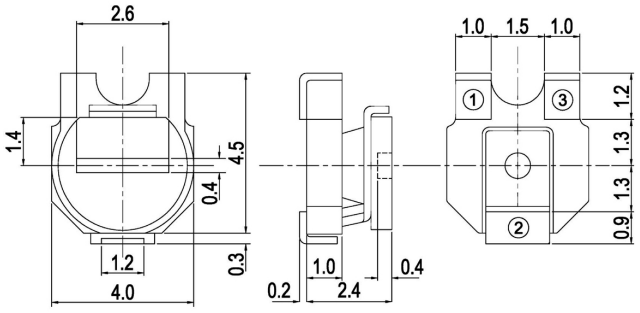
Derating Curve



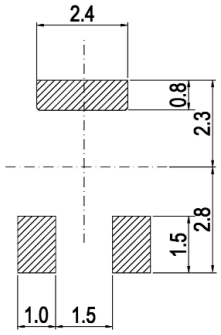
When the ambient temperature exceeds 70°C, reduce the rated power and current in accordance with the derating curve shown

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Dimensions



Substrate Layout



Cleaning Conditions

After soldering, use cleaning solvents such as chlorosen or dyefreon.

Storage

To prevent damage to the electrode, be sure to observe the following cautions for storage.

Store in 40°C maximum ambient temperature and 70°C maximum ambient RH.

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

Store where there are no harmful gases containing sulphur or chlorine.

How to Order

3142	W	102	P
Common Part	**Orientation**	**Resistance Value**	**Tolerance**
3130 - 3 Terminals	W - Terminals 1&3 towards sprocket holes	The first two digits are significant figures of resistance value and the third denotes the number of zeros following. e.g. 100R: 101 1K: 102 10K: 103 100K: 104 1MO: 105	P - 25 %