

## 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  |

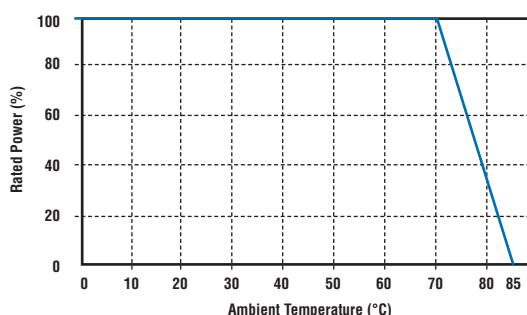
### Characteristics - Mechanical

|                      |                               |
|----------------------|-------------------------------|
| 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                |

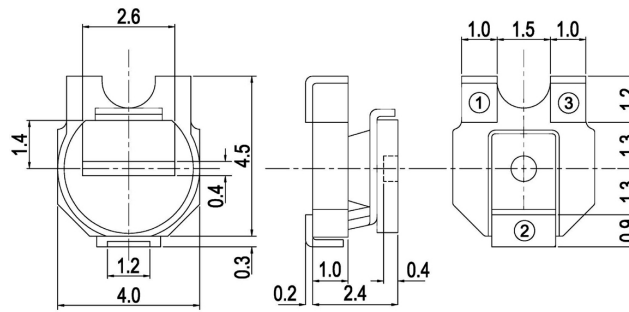
### Derating Curve



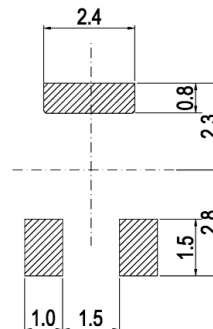
When the ambient temperature exceeds 70°C, reduce the rated power and current in accordance with the derating curve shown

**Type 3142 Series**

**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.<br><br>e.g. 100R: 101<br>1K: 102<br>10K: 103<br>100K: 104<br>1MO: 105 | P - 25 %  |