Electronics
Type OS Series


The OS Series is designed for current sensing using a range of low TCR resistive alloys to create the value and current capability you require.
The ribbon is welded to 1 mm diameter solid (OFHC) copper leads that are tin/lead electroplated. The OS is ideally suited to current detection in power supply circuits, electric meter sensing, protection feed back circuits and a wide range of automotive positions.

## Key Features

- Small Size Light Weight
- Easy to Mount
- Completely Non Inductive
- Temperature Range $-55^{\circ} \mathrm{C}$ to $+155^{\circ} \mathrm{C}$
- High Power up to 5 Watts
- High Current up to 14 Amps
- Custom Designs Welcomed


## Characteristics -

Electrical

| Resistance Value: | R005, R01, R015, R022, R025, R033, R047, <br> R051 (or custom) |
| :--- | :--- |
| Resistance Tolerance: | $5 \%, 10 \%$ (tighter by discussion) |
| Temperature Coefficient of Resistance: | Material 20ppm/ ${ }^{\circ} \mathrm{C}$ Effective $100 \mathrm{ppm} /{ }^{\circ} \mathrm{C}$ over range |
| Rated Ambient Temperature: | $+70^{\circ} \mathrm{C}$ |
| Operating Temperature Range: | $-40^{\circ} \mathrm{C}+200^{\circ} \mathrm{C}$ |
| Load Life @ 125 $\mathrm{C}:$ | 1000 hours $\Delta \mathrm{R}< \pm 2 \%$ max. |
| Temperature Cycling: | $-40^{\circ} \mathrm{C}+125^{\circ} \mathrm{C} 1000 \Delta \mathrm{R}< \pm 2 \%$ max. |
| Moisture No Load: | 1000 hours $\Delta \mathrm{R}< \pm 1 \%$ max. |
| Pack Quantity: | 500 boxed - loose pack |
|  |  |

## Temperature Rise Curve

Typical Temperature Rise Under Load Condition Type OS3



## Dimensions



| Type | $\mathbf{S}$ | $\mathbf{L}$ | $\mathbf{C} \pm \mathbf{0 . 2 5}$ | $\mathbf{P} \pm \mathbf{0 . 1}$ | $\mathbf{R} \pm \mathbf{0 . 1}$ | $\mathbf{B} \pm \mathbf{0 . 0 5}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{0 S} \mathbf{- 1}$ | 11.43 | $5.0 \pm 2.5$ | 3.2 | 1.2 | 2.0 | 1.7 |
| $\mathbf{O S}-\mathbf{3}$ | 15.20 | 25.4 Max | 3.2 | 1.2 | 2.0 | 1.7 |
| $\mathbf{O S}-\mathbf{5}$ | 20.30 | 25.4 Max | 3.2 | 1.2 | 2.0 | 1.7 |

## How to Order

| OS | 3 | R01 | 15 | $J$ |
| :---: | :---: | :---: | :---: | :---: |
| Common Part | Rated Power | Resistance Value | Insertion Pitch | Tolerance |
| OS - Open Wire Resistor (Radial) LW - Leaded Wire (Axial) Resistor (Custom) | $\begin{gathered} \text { 1-1 Watt } \\ \text { 3-3 Watt } \\ \text { 5-5 Watt } \\ \text { (Or Custom) } \end{gathered}$ | $\begin{gathered} 0.01 \text { Ohm } \\ (10 \mathrm{milli} \mathrm{Ohm}) \mathrm{R} 01 \end{gathered}$ | $\begin{aligned} & 12-12 \mathrm{~mm} \\ & 15-15 \mathrm{~mm} \\ & 20-20 \mathrm{~mm} \end{aligned}$ | $\begin{gathered} \mathrm{J} \pm 5 \% \\ \mathrm{~K} \pm 10 \% \\ \text { Tighter by Discussion } \end{gathered}$ |

