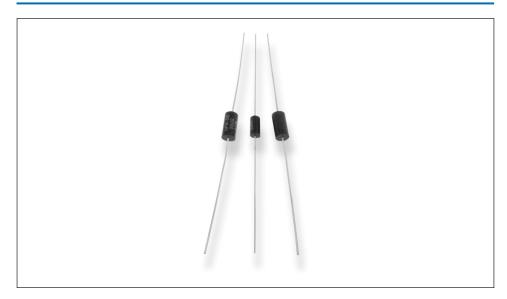


# Key Features

- Custom weld tabs and copper weld leads ensure a good mechanical and electrical connection between the element and the lead wires. Protection is given to the windings by means of a layer of silicone RTV rubber. This allows movement of the windings during temperature cycling due to loads and to varying ambient temperatures. Outer protection is given by means of a hot transfer moulded epoxy compound which ensures an airtight coating with no trapped air
- Superior quality wirewound resistors with very
  low selection tolerances
  and temperature
  coefficients down to 1 ppm.
  3 case sizes are available.
  T/C, ratio and pair
  matching is available
  and customer specifications
  are welcome. These
  components exhibit high
  stability under load and
  severe environmental
  conditions

# **Type UPW Series**

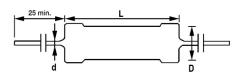


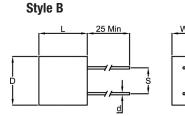
The resistive element is wire wound onto a moulded high temperature plastic bobbin with a central former. The direction of winding is reversed part way through the winding, giving very low values of inductance. These Neohm resistors use bobbin assemblies with flattened lead ends, providing high resistance to pull, vibration and torsional forces during handling, assembly and life.

### **Characteristics - Electrical**

	UPW15	UPW25	UPW30	UPW50
Rated Power @ 125°C (W) Derate to zero at 145°C	0.125	0.25	0.3	0.5
Resistance Range (Ohms) Min	R10	R10	R10	R10
Max	300K	1M0	1M0	2M0
Tolerance (%)		0.005 0.01 0.02	0.05 0.1 0.2 0.5	1
Code Letter		E L P	W B A D	F
Limiting Element Voltage (V)	150	300	150	400
Temp. Coefficient (ppm/°C) Typ.	± 3 (0°C to +85°C)			
Max.	± 5 (-55°C to +125°C) ± 1 available on request			
Operating Temperature Range (°C)	-55 to +145			
Long Term Stability (Load)	< 50 ppm @ 10,000 hrs			
	< 100ppm @ 26,000 hrs			
Thermal EMF	< 0.2 μ V /°C			

## **Dimensions - Style A**



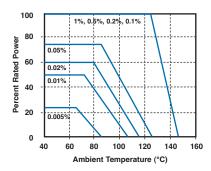


Туре	Style	L ± 0.4	D ± 0.4	W ± 0.5	s ± 0.2	d nom
UPW15	Α	6.35	3.18	-	-	0.64
UPW25	Α	9.53	4.75	-	-	0.64
UPW30	В	7.62	7.62	3.18	3.81	0.64
UPW50	Α	12.7	6.35	-	-	0.81



# **Type UPW Series**

### **Derating Curve**



UPW Series resistors must be derated for tolerances below 0.1%. Use the graph to select tolerance versus operating temperature to determine the percentage rated power for operation.

No derating is required for operation below 20 °C.

# Mounting

The resistors are suitable for processing on automatic insertion equipment and cutting and bending machines.

### Marking

The resistors are marked with the following information:- Manufacturer's name, type number, value and tolerance, four figure date code.

## **Packaging**

UPW Series resistors are packed loose in boxes.

#### **Performance Characteristics**

The evaluation of the performance characteristics is carried out with reference to IEC specifications QC 400 000 and QC 400 100.

TEST REF	Long Term Tests ±(0.25% + 0.05 ohm)
4.23	Climatic sequence
4.24	Damp heat, steady state
4.25.1	Endurance at 70 °C
4.25.3	Endurance at 145 °C
TEST REF	Short Term Tests ±(0.1% + 0.01 ohm)
4.13	Overload
	0.10110000
4.16	Robustness of terminations
4.16 4.18	
	Robustness of terminations
4.18	Robustness of terminations Resistance to soldering heat

All resistance values are measured at a distance of 9.53mm (0.375 inch) from the end cap.  $\,$ 

### **How to Order**

Orders for these components should include the following information: Type, tolerance code letter and value e.g. **UPW30 L 1K15** 

# **Mouser Electronics**

**Authorized Distributor** 

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

TE Connectivity: UPW25B10RV