

RWS7 & RWS10 Precision Power Wirewound SMD Resistors



This product has been uniquely designed to meet the rising power requirement for surface mount components. Optimised thermal design is targeted to give greater efficiency and improved surge capacity of up to 5 times for 5 seconds, whilst reducing surface temperature rise compared with other resistors. It has high reliability and has been engineered to reduce long term thermal damage to boards and surrounding components. Available in low inductance format, close TCR and tolerance bands. This product is RoHS compliant.



- Highest power SMD commercially available
- Optimised thermal design
- Excellent overload characteristics
- Very high power density for SMD
- Good stability and low standard TCR
- Low inductance available

Electrical Specifications

Type	Wattage	Tolerance	Resistance Range		Resistance Range Non-inductive	
			Min	Max	Min	Max
RWS7	7	D (0.5%) F (1%) J (5%)	R1	5K	R1	1K
RWS10	10		R1	10K	R1	2K

Characteristics

Operating temperature:	-55°C to +275°C
Temperature coefficient:	$\pm 90\text{ppm}/^\circ\text{C}$ R1 - R99, $\pm 50\text{ppm}/^\circ\text{C}$ 1R - 10R, $\pm 20\text{ppm}/^\circ\text{C}$ > 10R
Max. working voltage:	$(P \times R)^{1/2}$
Short time overload:	5 times rated power for 5 seconds, $\pm(0.5\% + 0.5\text{m}\Omega) \Delta R$
Solderability:	Bath temperature $260 \pm 5^\circ\text{C}$, immersion time 5 ± 0.5 seconds JIS C 5201 4.18, > 90% of contact face covered new solder
Life:	Test temperature at $70^\circ\text{C} \pm 2^\circ\text{C}$, rated DC continuous working voltage applied, 1.5 hours on and 0.5 hours off for 1000 hours, $\pm(2.0\% + 0.5\text{m}\Omega) \Delta R$

Ordering Procedure

Standard Resistor: Series, Resistance Value, Tolerance, Packaging (T&R or Bulk)
e.g. RWS7 R005 F T&R

ARCOL UK Limited,
Threemilestone Ind. Estate,
Truro, Cornwall, TR4 9LG, UK.
T +44 (0) 1872 277431
F +44 (0) 1872 222002
E sales@arcolresistors.com

www.arcolresistors.com

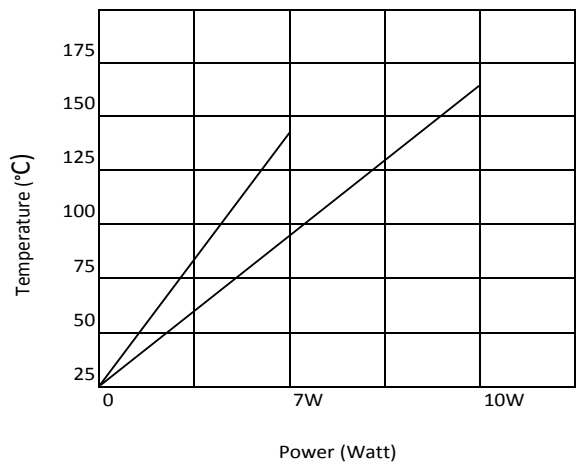
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It is the responsibility of the customer to ensure that the component selected from our range is suitable for the intended application. If in doubt please ask Arcol.

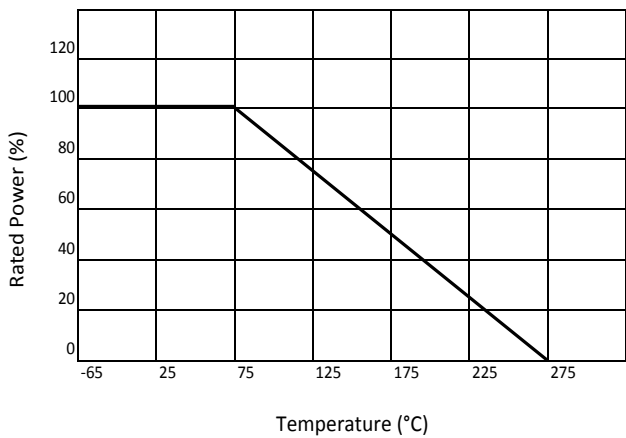
RWS7 & RWS10 SMD Precision Power Wirewound Resistor



Temperature Rise



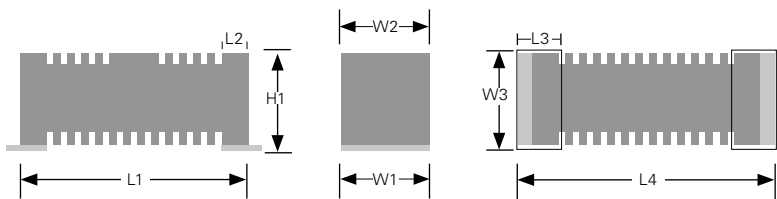
Derating Curve



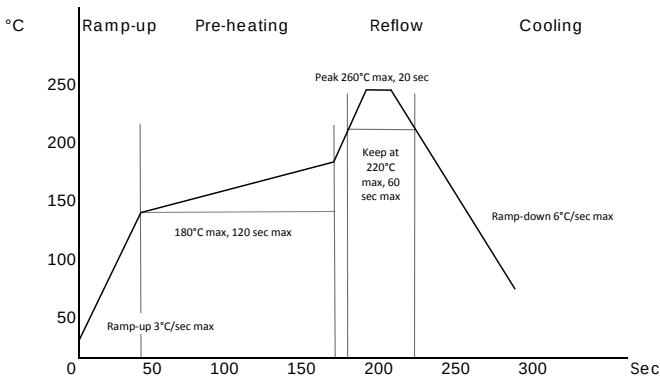
Dimensions (mm ±0.38)

Type	L ₁	L ₂	W ₁	H ₁	W ₂
RWS7	20.5	1.50	9.30	10.30	8.97
RWS10	28.60	2.54	12.00	13.00	11.54

Solder Pad Dimensions			
Type	L ₃	L ₄	W ₃
RWS7	5.70	22.50	11.30
RWS10	14.00	30.60	14.00



Soldering Recommendation



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Mouser Electronics

Authorized Distributor

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