

RWS Precision Power Wirewound SMD Resistor



A compact and precision power resistor, manufactured to the highest standards; reliable and robust but still achieving drift of less than 1% and TCR of 10-90ppm/°C when under rated conditions

- High overload capability for surge and pulse applications
- Low inductance available
- Custom specification available
- RoHS Compliant



Electrical Specifications

Type	Wattage	Tolerance	Resistance Range		Resistance Range - Non-inductive	
			Min	Max	Min	Max
RWS05	0.5	D (0.5%) F (1%) J (5%)	R005	1K	R1	200R
RWS1	1		R005	5K8	R1	1K2
RWS2	2		R005	14K	R1	2K8
RWS3	3		R01	25K	R1	5K
RWS5	5		R05	50K	R1	10K

Characteristics

Tolerance (Code):	$\pm 0.5\%$ (D), $\pm 1\%$ (F), $\pm 5\%$ (J)
Operating temperature:	-55°C to +155°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 wattage for 5 seconds $\pm(0.5\% + 0.05\text{m}\Omega)\Delta R$
Solderability	Bath temperature $235 \pm 5^\circ\text{C}$, immersion time 2 ± 0.5 seconds JIS C 5201 4.17 >95% of contact face covered new solder
Resistance to solder heat	Bath temperature $260 \pm 5^\circ\text{C}$, immersion time 10 ± 1 seconds JIS C 5201 4.18 $\pm(0.5\% + 0.05\text{m}\Omega)\Delta R$
Dielectric withstanding voltage	Test voltage >500V, duration 1 minute JIS C 5201 4.7
Load life	$70^\circ\text{C} \pm 2^\circ\text{C}$, rated DC working voltage applied 1.5 hours on and 0.5 hours off, 1000 hours, $\pm(2.0\% + 0.05\text{m}\Omega)\Delta R$

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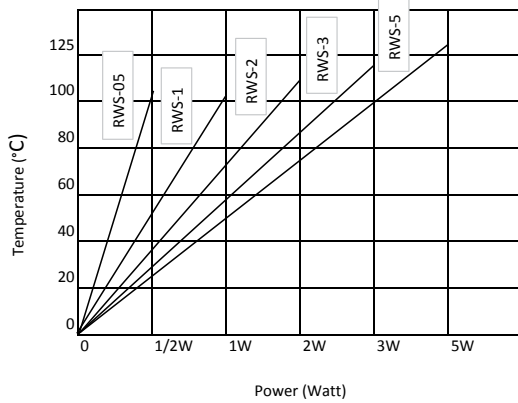
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It is the responsibility of the customer to ensure that the component selected from our range is suitable for the intended application. If in doubt please ask Arcol.

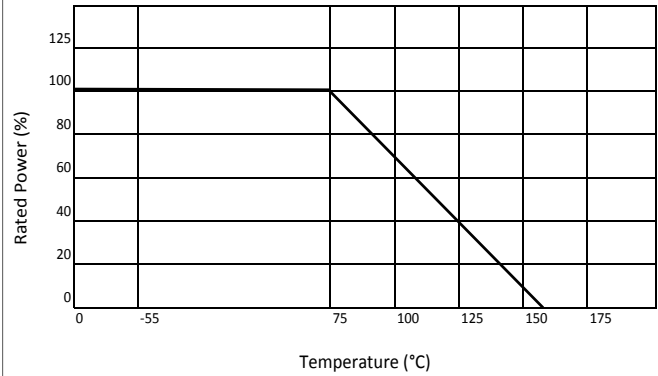
RWS SMD Precision Power Wirewound Resistor



Temperature Rise

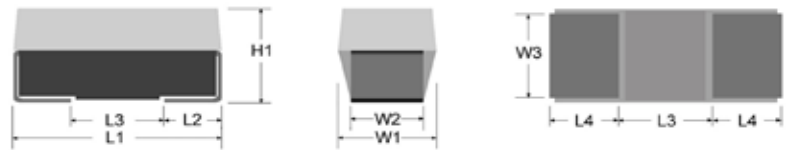


Derating Curve



Dimensions (in mm ±0.5)

Type	L ₁	L ₂	L ₃	H ₁	W ₂
RWS05	5.08	1.28	2.52	3.25	1.663
RWS1	7.50	1.75	4.00	4.64	2.405
RWS2	11.00	2.00	7.00	4.65	3.59
RWS3	13.50	2.50	8.50	5.65	4.20
RWS5	20.30	3.00	12.30	7.87	4.90



Solder Pad Dimensions		
Type	L ₄	W ₃
RWS05	1.98	2.16
RWS1	2.45	2.95
RWS2	2.75	3.70
RWS3	3.20	4.20
RWS5	3.70	5.10

Ordering Procedure

Standard Resistor: Series, Resistance Value, Tolerance, Packaging (T&R or Bulk)
e.g. RWS1 / NRWS1 (non-inductive) R005 F T&R

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