



## RWN Series Datasheet

SMD | Power Resistor Non - Inductive | Flat Wire  
Epoxy Encapsulation

### ORDERING CODE-Example

New SAP Part Nr.:

<b>RWN</b>	<b>502</b>	<b>J</b>	<b>K</b>	<b>-</b>	<b>13-</b>	<b>R01</b>	<b>AA</b>
Serie	Size	Tol.	Pack-Code	TCR	Package type	R Value	Special
	502 = 5020	F = ±1% J = ±5%	K = Blister Tape	- Base on spec.	13- = 13 inch (Reel diameter)		AA = Standard

Historical VTM Part Nr.:

<b>RWN</b>	<b>5020</b>	<b>J</b>	<b>K</b>	<b>-</b>	<b>13</b>	<b>R01</b>
Type	Size	Tol.	K = Blister tape reel	TC	Reel diam.	R Value

### APPLICATIONS

- Automotive
- Alternative Energy
- Home Appliances
- Charger
- Power Supply
- Industrial

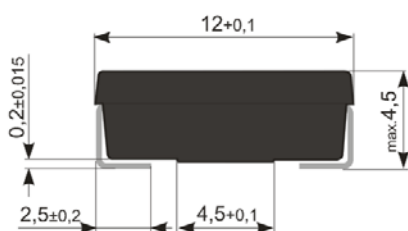
### FEATURES

- Suitable for automatic pick and place
- All welded construction
- Small package size
- Molded encapsulation
- Non – inductive style
- RoHs & REACH Compliant

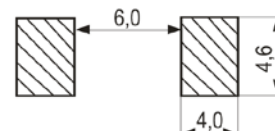
### ELECTRICAL SPECIFICATIONS

Type		<b>RWN502</b>
Historical Part Number		RWN5020
Nominal Power Rating	P <sub>25</sub>	2,2
	P <sub>70</sub>	1,6
Resistance Range	[Ω]	R002 ... R05 (Other values upon request)
E-Series (preferred)		R002, R003, R005 ≥ R01 : E12 (Other upon request)
Tolerances	±[%]	F = 1% ; J = 5%
Temperature Coefficient	±[10 <sup>-6</sup> K <sup>-1</sup> ]	Depends on the value, please check the table below
Working Temperature Range	[°C]	-55 ... +200
Thermal Resistance	[KW <sup>-1</sup> ]	100
Max. Working Voltage	[V] <sub>RMS</sub>	$\sqrt{P_{70} \times R}$
Dielectric Withstanding Voltage IEC115-1 clause 4.7 (1[min])	[V] <sub>RMS</sub>	1000
Insulation Resistance IEC115-1 clause 4.6	[MΩ]	>1000

### DIMENSIONS [mm]



#### SOLDER PAD

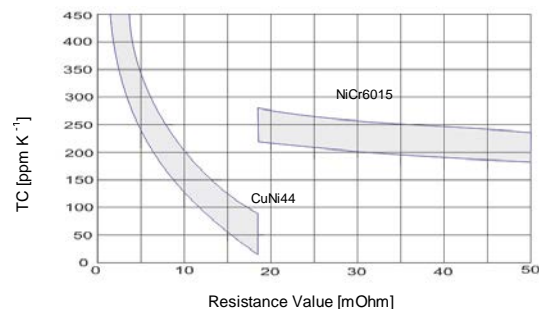


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### PERFORMANCE DATE

Type			<b>RWN502</b>
Historical Part Number			RWN5020
Derating Linear	[°C]		70...200 (0W)
Climatic Category			55/175/56
Endurance <i>IEC60115-1 clause 4.25</i> <i>(P<sub>av</sub> @ 70[°C], 1000[h])</i>	±[%]		1,0
Damp Heat, Steady State <i>IEC60115-1 clause 4.24</i> <i>(40[°C], 93[% r.h.], 56[d])</i>	±[%]		0,25
Climatic Sequence <i>IEC60115-1 clause 4.23</i>	±[%]		1,0
Resistance to Soldering Heat <i>IEC60115-1 clause 4.18</i> <i>(260<sup>±5</sup>[°C], 3,5<sup>±1</sup>[s])</i>	±[%]		0,25
Short Time Overload <i>IEC60115-1 clause 4.13</i>	±[%]		1,0
Temperature Shock <i>IEC60115-1 clause 4.19</i>	±[%]		0,25
Board-bending Test			No interruption
Single Pulse	<i>i<sub>max</sub></i>	[A]	50
	<i>E<sub>i,max</sub></i>	[mWs]	625
	<i>T<sub>imp,max</sub></i>	[ms]	5
Periodic Pulse Load	<i>i<sub>max</sub></i>	[A]	30 (OR002 ...OR018) 40 (OR022 ...OR05)
	<i>E<sub>i, per, max</sub></i>	[mWs]	225
	<i>T<sub>imp, max</sub></i>	[ms]	5
	<i>t<sub>pause</sub></i>	[ms]	100
Solderability <i>IEC60068-2-20</i> <i>(245<sup>±5</sup>[°C] 3<sup>±0,5</sup>[s])</i>			Solder bath method (> 95% coverage)
Marking <i>IEC60062</i>			Printed in clear (Type – Value – Tolerance)

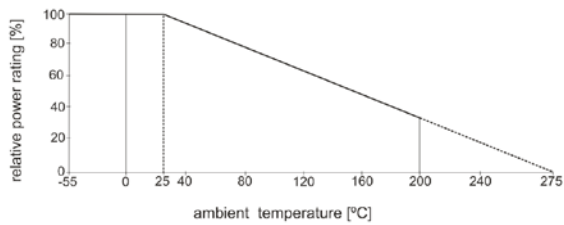
### TEMPERATURE COEFFICIENT



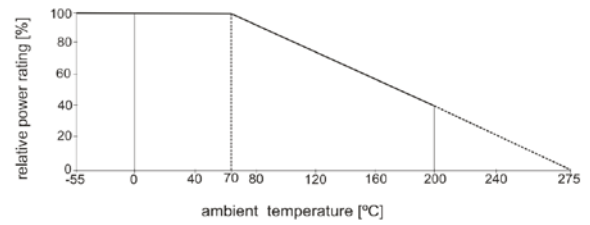
## RWN Series Datasheet

### PERFORMANCE GRAPH's

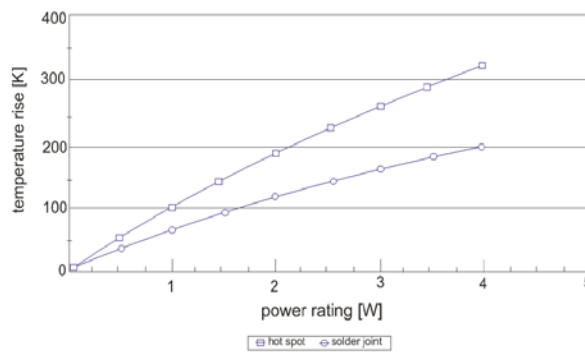
Derating – P<sub>25</sub>



Derating – P<sub>70</sub>

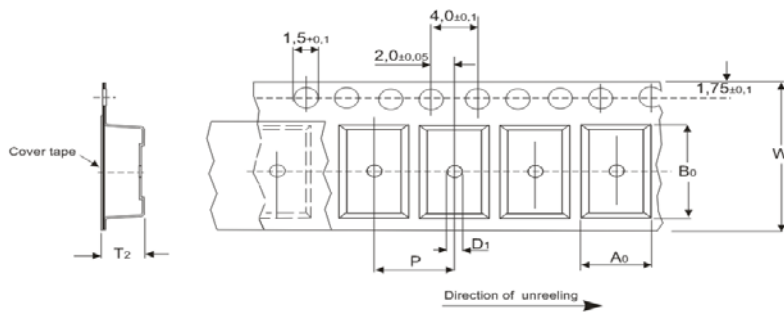


Temperature Rise

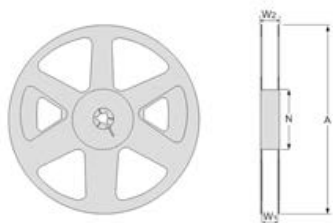


### PACKAGING

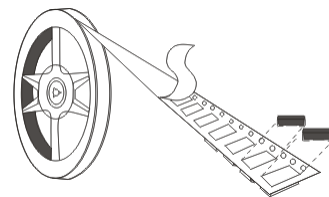
The standard packaging for RWN, dimensions below.



Type	A0	B0	W	D1	P	T2
RWN502	5,4	12,4	24	1,5	8	5



Type	W1	W2	N	A
RWN502	25,4	29,5	90	330



Type	Packaging	Pieces
RWN502	13(inch) Blister tape	1500