



# RWN Series Datasheet

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

## APPLICATIONS



Automotive



Consumer & Electronics

## FEATURES

Suitable for automatic pick and place

All welded construction

Small package size

Molded encapsulation

Non – inductive style

RoHs & REACH Compliant

## ORDERING CODE - Example

New SAP Part Nr.:

RWN	502	J	K	-	13-	R01	AA
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

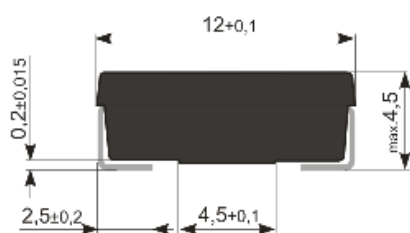
Historical VTM Part Nr.:

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

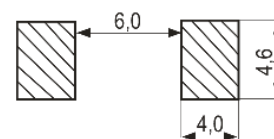
## ELECTRICAL SPECIFICATIONS

Type			RWN502
Historical Part Number			RWN5020
Nominal Power Rating	P <sub>25</sub>	[W]	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

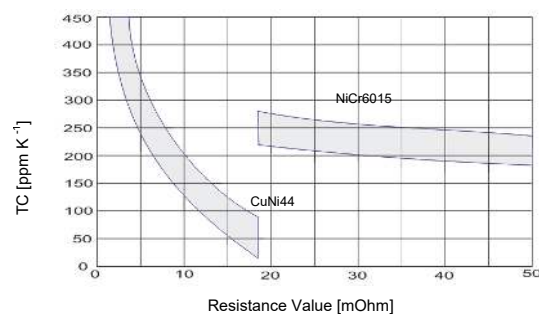


# RWN Series Datasheet

## PERFORMANCE DATA

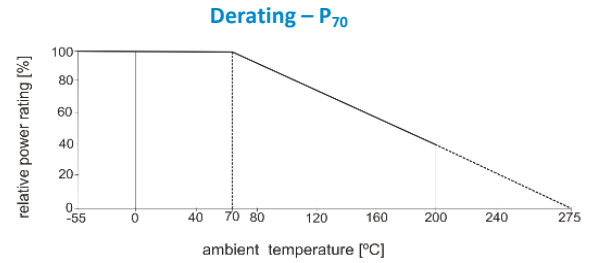
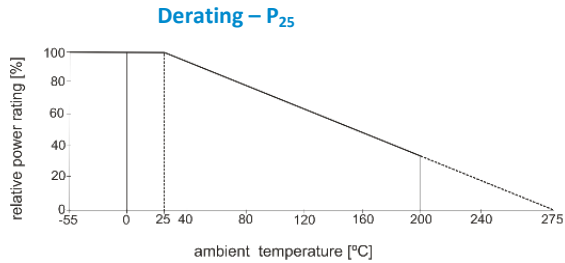
Type		<b>RWN502</b>	
Historical Part Number		RWN5020	
Derating Linear	[°C]	70...200 (0W)	
Climatic Category		55/175/56	
Endurance <i>IEC60115-1 clause 4.25</i> <i>(P<sub>70</sub> @ 70[°C], 1000[h])</i>	±[%]	1,0	
Damp Heat, Steady State <i>IEC60115-1 clause 4.24</i> <i>(40[°C], 93[% r.h.], 56[d])</i>	±[%]	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 <sub>max</sub>	[A]	50
	E <sub>i,max</sub>	[mWs]	625
	T <sub>imp,max</sub>	[ms]	5
Periodic Pulse Load	i <sub>max</sub>	[A]	30 (0R002 ...0R018) 40 (0R022 ...0R05)
	E <sub>i, per, max</sub>	[mWs]	225
	T <sub>imp, max</sub>	[ms]	5
	t <sub>pause</sub>	[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

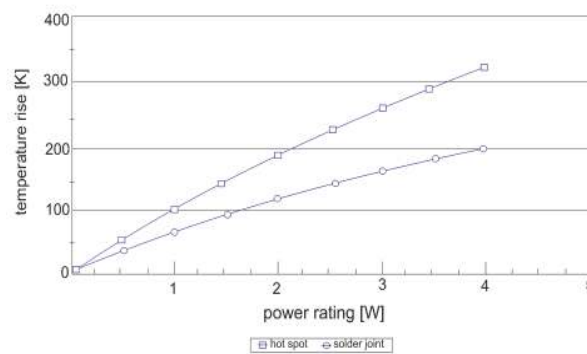


# RWN Series Datasheet

## PERFORMANCE GRAPHS

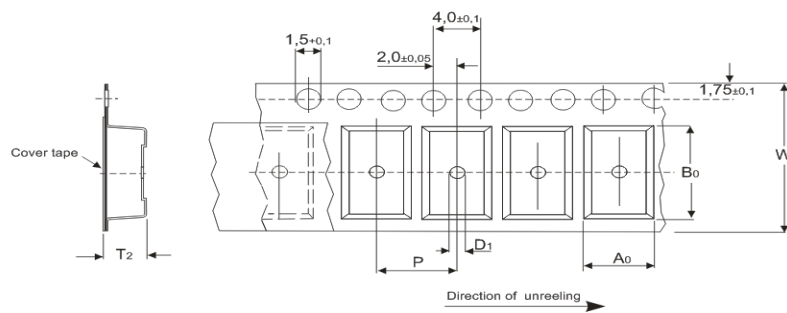


## Temperature Rise

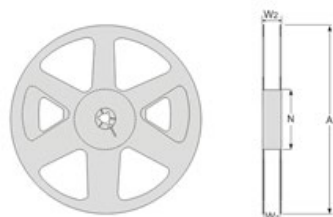


## PACKAGING

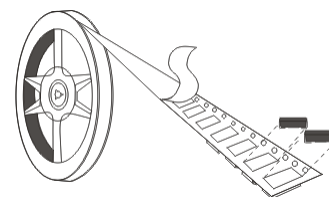
The standard packaging for RWN, dimensions below.



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