



RWN Series Datasheet

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

ORDERING CODE-Example

New SAP Part Nr.:

RWN	502	J	K	-	13-	OR01	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	OR01
Type	Size	Tol.	K = Blister tape reel	TC	Reel diam.	R Value

APPLICATIONS

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

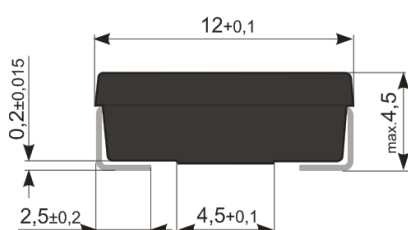
FEATURES

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

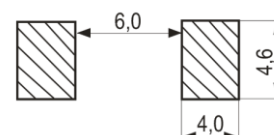
ELECTRICAL SPECIFICATIONS

Type		RWN502
Historical Part Number		RWN5020
Nominal Power Rating	P ₂₅	2,2
	P ₇₀	1,6
Resistance Range	[Ω]	OR002 ... OR05 (Other values upon request)
E-Series (preferred)		OR002,OR003,OR005 ≥ OR01 : E12 (Other upon request)
Tolerances	±[%]	F = 1% ; J = 5%
Temperature Coefficient	±[10 ⁻⁶ K ⁻¹]	Depends on the value, please check the table below
Working Temperature Range	[°C]	-55 ... +200
Thermal Resistance	[KW ⁻¹]	100
Max. Working Voltage	[V] _{RMS}	$\sqrt{P_{70} \times R}$
Dielectric Withstanding Voltage IEC115-1 clause 4.7 (1[min])	[V] _{RMS}	1000
Insulation Resistance IEC115-1 clause 4.6	[MΩ]	>1000

DIMENSIONS [mm]



SOLDER PAD

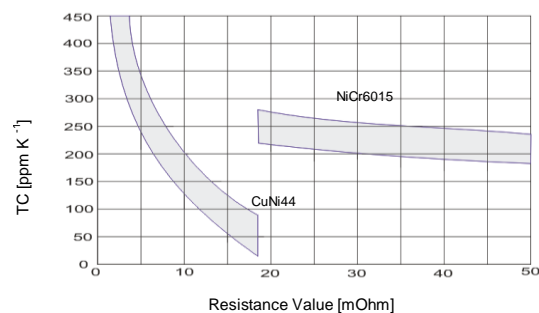


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PERFORMANCE DATE

Type			RWN502
Historical Part Number			RWN5020
Derating Linear	[°C]		70...200 (0W)
Climatic Category			55/175/56
Endurance <i>IEC60115-1 clause 4.25</i> <i>(P₇₀ @ 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^{±5}[°C], 3,5^{±1}[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_{max}</i>	[A]	50
	<i>E_{i,max}</i>	[mWs]	625
	<i>T_{imp,max}</i>	[ms]	5
Periodic Pulse Load	<i>i_{max}</i>	[A]	30 (OR002 ...OR018) 40 (OR022 ...OR05)
	<i>E_{i, per, max}</i>	[mWs]	225
	<i>T_{imp, max}</i>	[ms]	5
	<i>t_{pause}</i>	[ms]	100
Solderability <i>IEC60068-2-20</i> <i>(245^{±5}[°C] 3^{±0,5}[s])</i>			Solder bath method (> 95% coverage)
Marking <i>IEC60062</i>			Printed in clear (Type – Value – Tolerance)

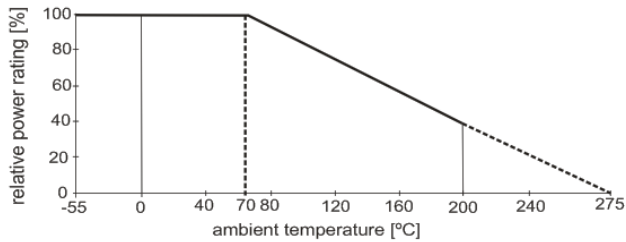
TEMPERATURE COEFFICIENT



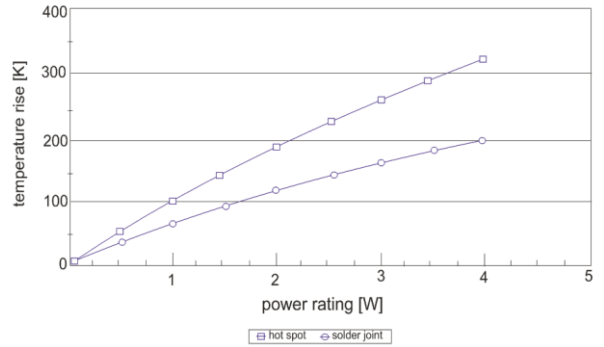
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PERFORMANCE GRAPH's

DERATING

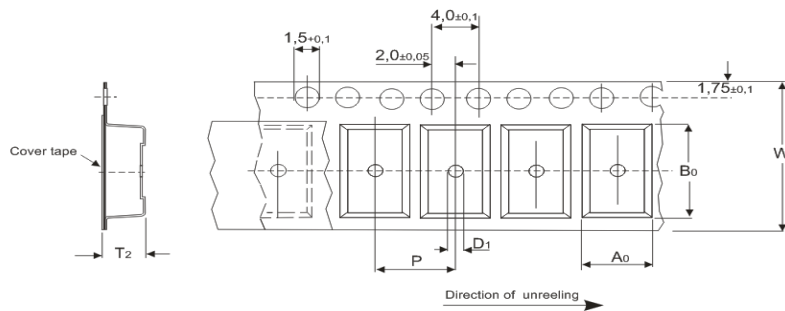


TEMPERATURE RISE

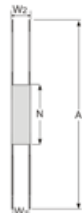


PACKAGING

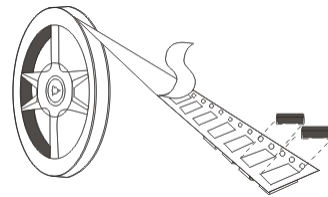
The standard packaging for RWN, dimensions below.



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