

RWC Series Datasheet

SMD | Power Wirewound Resistors | Ceramic core
Epoxy Encapsulation

ORDERING CODE - Example

New SAP Part Nr.:

RWC	502	J	K	-	13-	150R	AA
Series	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

APPLICATIONS

- Automotive
- Industrial
- Computer & Peripherals
- Consumer & Electronics

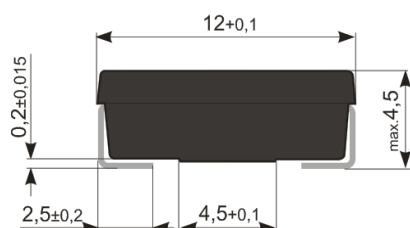
FEATURES

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

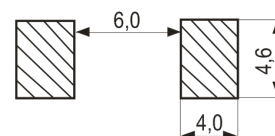
ELECTRICAL SPECIFICATIONS

Type			RWC502
Historical Part Number			RWC5020
Nominal Power Rating	P ₂₅	[W]	2,2
	P ₇₀		1,6
Resistance Range		[Ω]	OR01 ... 220R (Other values upon request)
E-Series (preferred)			E24 (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 DATA

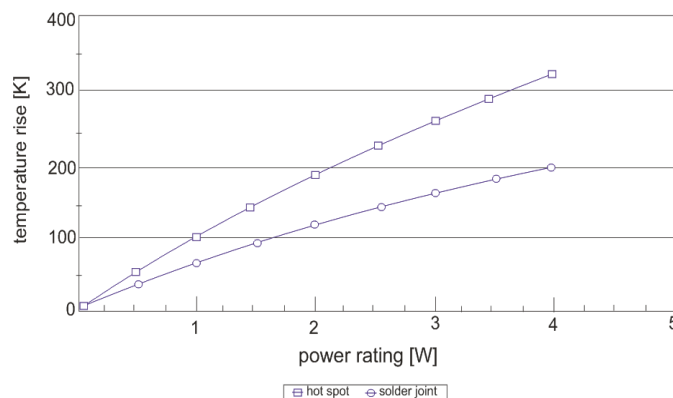
Type		RWC502
Historical Part Number		RWC5020
Derating Linear	[°C]	70...200 (0W)
Climatic Category		55/200/56
Endurance <i>IEC60115-1 clause 4.25</i> <i>(P₇₀, @ 70[°C], 1000[h])</i>	±[%]	1,0
Damp Heat, Steady State <i>IEC60115-1 clause 4.24</i> <i>(40[°C], 93[% r.h.], 56[d])</i>	±[%]	0,25
Climatic Sequence <i>IEC60115-1 clause 4.23</i>	±[%]	0,25
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
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

New P/Nr. Type	Historical P/N:	Temperature Coefficient (-20°C to 120°C)							
		400 ± 50 ppm/K		appr. +180 ppm/K		-20 ± 60 ppm/K		0 ± 10 ppm/K	
RWC502	RWC5020	≥ 0R01	≤ 0R024	≥ 0R027	≤ 0R091	≥ 0R1	≤ 15R	≥ 16R	≤ 220R

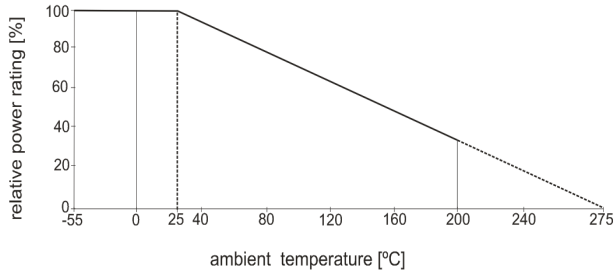
PERFORMANCE GRAPHS

Temperature Rise

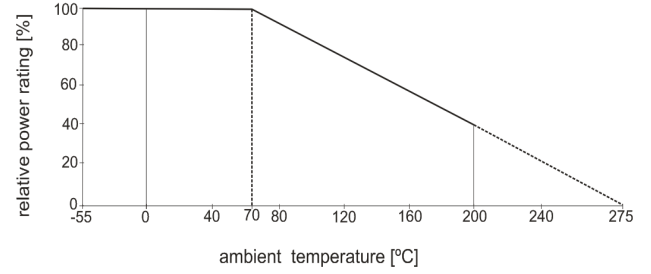


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Derating – P₂₅

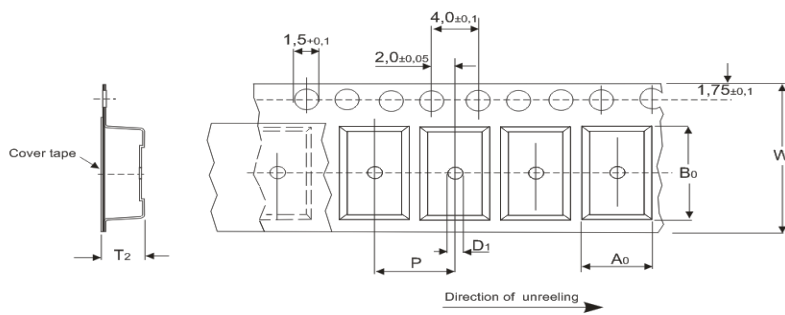


Derating – P₇₀

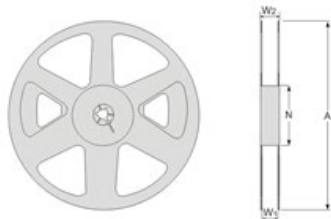


PACKAGING

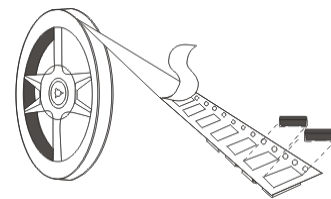
The standard packaging for RWC, dimensions below.



Type	A0	B0	W	D1	P	T2
RWC502	5,4	12,4	24	1,5	8	5



Type	W1	W2	N	A
RWC502	25,4	29,5	90	330



Type	Packaging	Pieces
RWC502	13(inch) Blister tape	1500