



RWI Series Datasheet

SMD | Power Wirewound Resistors | Pulse Version | Ceramic core
Epoxy Encapsulation

ORDERING CODE - Example

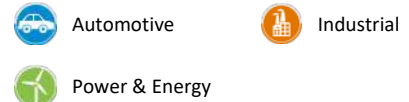
New SAP Part Nr.:

RWI	502	J	K	-	13-	100R	AA
Serie	Size	Tol.	Pack-Code	TCR	Package type	R Value	Special
	502 = 5020	F = ±1% G = ±2% J = ±5%	K = Blister Tape	- Base on spec.	13- = 13 inch (Reel diameter)		AA = Standard

Historical VTM Part Nr.:

RWI	5020	J	K	-	13	100R
Type	Size	Tol.	K = Blister tape reel	TC	Reel diam.	R Value

APPLICATIONS



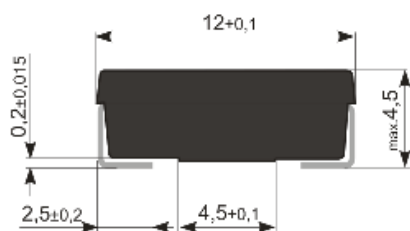
FEATURES

- Suitable for automatic pick and place
- Best in class inrush current capability (IEC61000-4 5)
- All welded construction
- Small package size
- Molded encapsulation
- RoHs & REACH Compliant

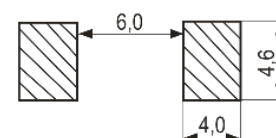
ELECTRICAL SPECIFICATIONS

Type			RWI502
Historical Part Number			RWI5020
Nominal Power Rating	P ₂₅	[W]	3,0
	P ₇₀		2,2
Resistance Range		[Ω]	OR1 ... 220R (Other values upon request)
E-Series (preferred)			E24 (Other upon request)
Tolerances		±[%]	F = 1% ; G = 2% ; J = 5%
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



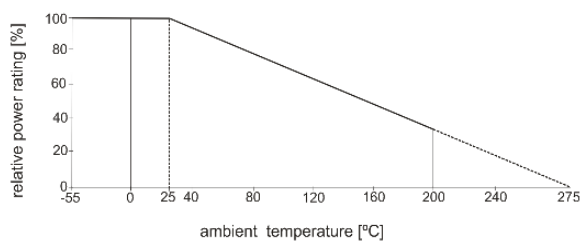
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PERFORMANCE DATA

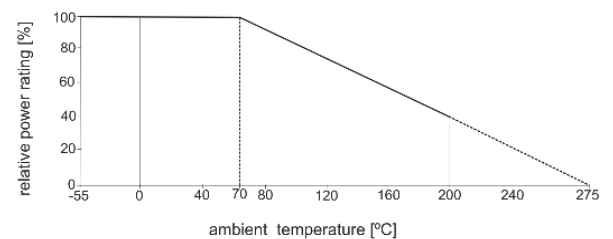
Type		RWI502
Historical Part Number		RWI5020
Derating Linear	[°C]	70...200 (0W)
Climatic Category		55/200/56
Surge Test IEC61000-4-5 Internal impedance 12[Ω], 10 pulses, 20[s] interval	±[%]	2,0
Endurance IEC60115-1 clause 4.25 (P_{70} , @ 70[°C], 1000[h])	±[%]	1,0
Damp Heat, Steady State IEC60115-1 clause 4.24 (40[°C], 93[% r.h.], 56[d])	±[%]	0,25
Climatic Sequence IEC60115-1 clause 4.23	±[%]	0,25
Resistance to Soldering Heat IEC60115-1 clause 4.18 (260 ^{±5} [°C], 3,5 ^{±1} [s])	±[%]	0,25
Short Time Overload IEC60115-1 clause 4.13 ($U=5 * \sqrt{P_{10} * R}$, 5[s])	±[%]	1,0
Rapid change of temperature IEC115-1 clause 4.19 and IEC60068-2-14 (30 [min] -55 [°C] and 30 [min] +125 [°C])	±[%]	0,25
Board-bending test		No interruption
Solderability IEC60068-2-20 (245 ^{±5} [°C] 3 ^{±0,5} [s])		Solder bath method (> 95% coverage)
Marking IEC60062		Printed in clear (Type – Value – Tolerance)

PERFORMANCE GRAPHS

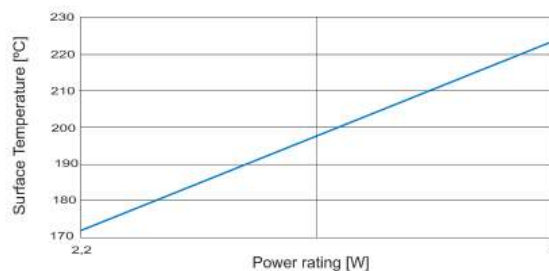
Derating – P₂₅



Derating – P₇₀



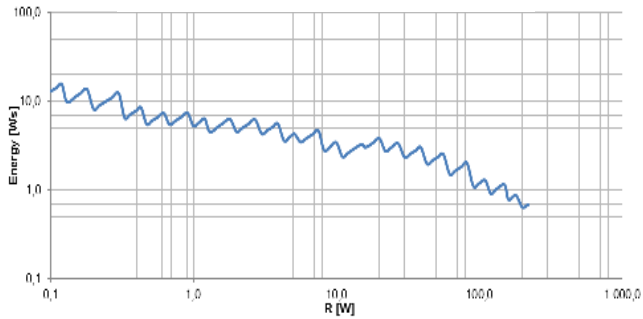
Temperature Rise



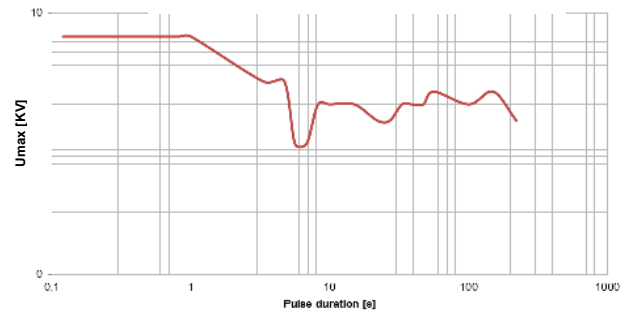
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PULSE PERFORMANCE

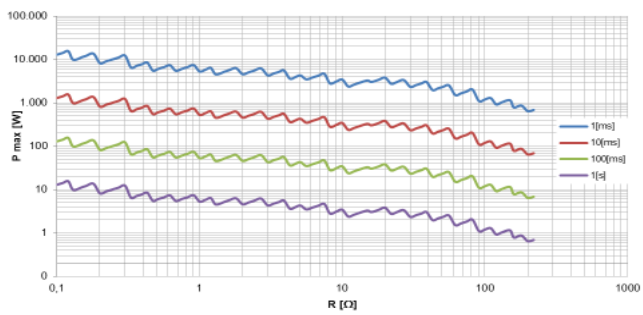
Energy Capability Graph (based on a wire temperature)



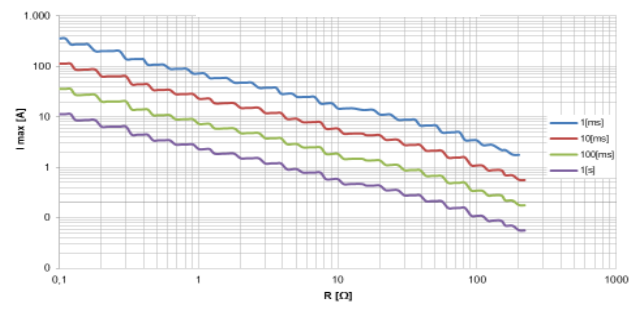
Maximum Pulse Voltage (IEC61000-4-5)



Maximum Pulse Power

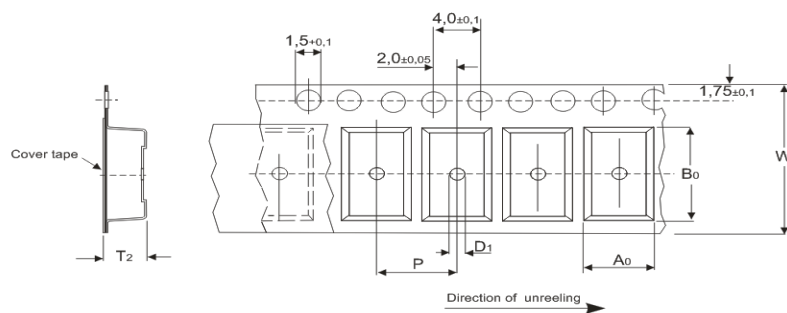


Maximum Pulse Current

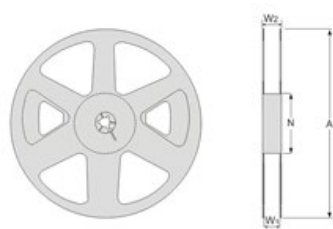


PACKAGING

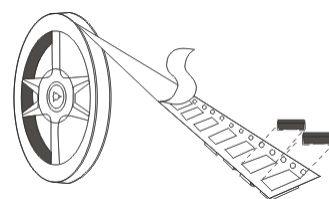
The standard packaging for RWI dimensions below.



Type	A0	B0	W	D1	P	T2
RWI502	5,4	12,4	24	1,5	8	5



Type	W1	W2	N	A
RWI502	25,4	29,5	90	330



Type	Packaging	Pieces
RWI502	13(inch) Blister tape	1500