

SMD

Power Safety Wirewound Resistors

Flame retardant, Ceramic core

Silicone Encapsulation



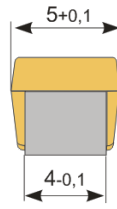
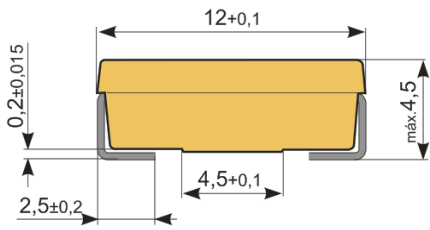
ELECTRICAL SPECIFICATIONS

Type		RWS
<u>Style</u>		5020
<u>Nominal Power rating</u>	P ₂₅ P ₇₀ [W]	2,2 1,6
<u>Resistance range</u>	[Ω]	*1R0 ... 100R
<u>E-Series</u>		E24
<u>Tolerances</u>	± [%]	5 (J)
<u>Temperature coefficient</u>	[10 ⁻⁶ *K ⁻¹]	120+50
<u>Temperature range</u>	[°C]	-55 ... +200
<u>Thermal resistance</u>	[KW ⁻¹]	100
<u>Dielectric withstanding voltage</u> <i>IEC115-1 clause 4.7 (1[min])</i>	[V] _{RMS}	1000
<u>Max. working voltage</u>	[V] _{RMS}	$\sqrt{P_{70} * R}$
<u>Insulation resistance</u> <i>IEC115-1 clause 4.6</i>	[MΩ]	>1000

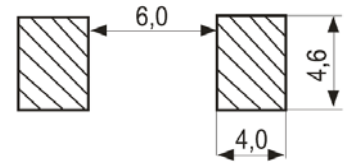
PERFORMANCE DATA

<u>Derating linear</u>	[°C]	Linear 70...200 (0[W])
<u>Climatic category</u>		55/200/56
<u>Endurance</u> <i>IEC60115-1 clause 4.25</i> (P ₇₀ , @ 70[°C], 1000[h])	± [%]	3
<u>Damp heat, steady state</u> <i>IEC115-1 clause 4.24</i> (40[°C], 93[% r.h.], 56[d])	± [%]	2
<u>Climatic sequence</u> <i>IEC115-1 clause 4.23</i>	± [%]	1,0
<u>Short Time Overload</u> <i>IEC60115-1 clause 4.13</i> ($U = \sqrt{5 \times P_{70} \times R}$, 5[s])	± [%]	1,0
<u>Temperature shock</u> <i>IEC115-1 clause 4.19</i>	± [%]	0,25
<u>Resistance to soldering heat</u> <i>IEC115-1 clause 4.12</i> (260[°C], 3,5[s])	± [%]	0,25
<u>Board-bending test</u>		No interruption
<u>Solderability</u> <i>IEC 60068-2-20</i> (245 ^{±3} [°C] 3 ^{±0,3} [s])		Solder bath method (> 95% coverage)
<u>Marking</u> <i>IEC60062</i>		Printed in clear (type – value- tolerance)

DIMENSIONS [mm]



Recommended solder Pads:

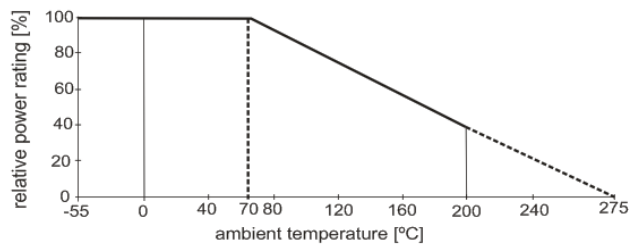


FUSING PERFORMANCE

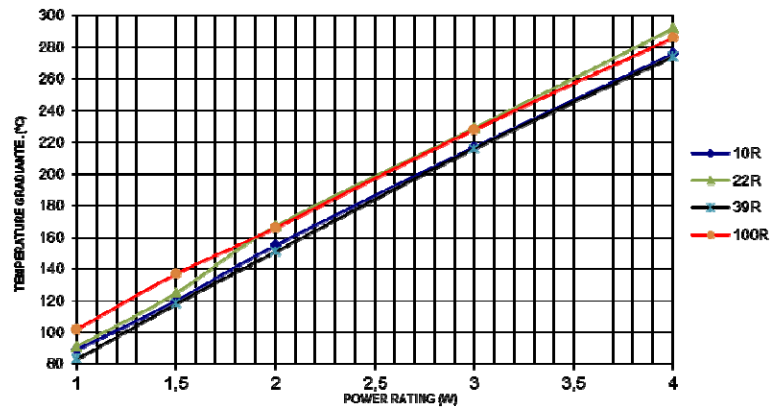
Type	Resistance range	Note: The special construction off resistance values >10R results in an immediate interruption (<1s, 200[ms] typical), when mains voltage (120/230[V] _{RMS}) is applied. No flames, no explosion. After fusing, the resistance value is 100K.
RWS	*1R ... 100R	* The interruption mechanism for resistance values <10R and resistance values >max. range is not clearly defined, also for other voltage. Need to be tested in the final application

PERFORMANCE GRAPH'S

Derating

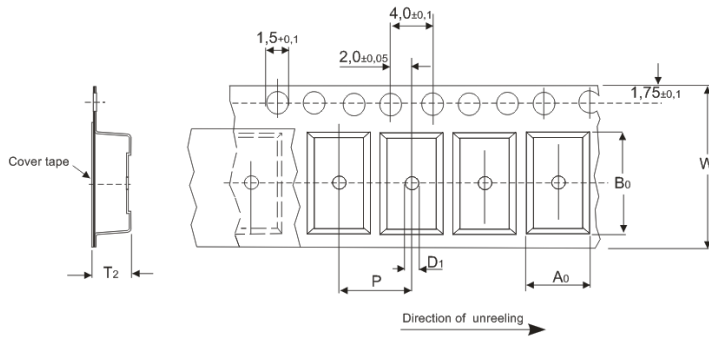


Temperature rise

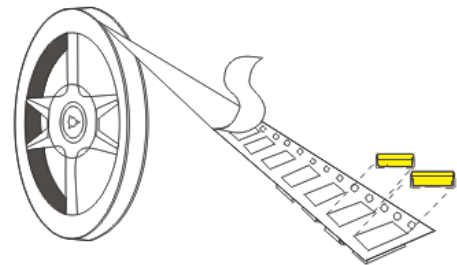
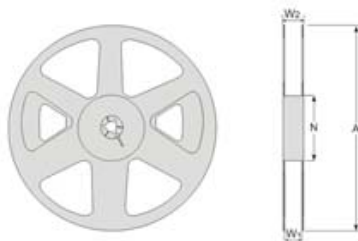


PACKAGING

The standard packaging for RWS, dimensions below.



Dimensions [mm]	
A0	5,4
B0	12,4
W	24
D1	1,5
P	8
T2	5



Type	W ₁	W ₂	N	A
RWF	25,4	29,5	90	330

Type	Packaging	Pieces
RWF	13 [inch] Blister tape	1500

ORDERING EXAMPLE

RWS	5020	J	K	-	13	10R
Type	Size	Tolerance	Blister tape reel	TC	Reel diameter	R-Value