

## SMD Power Resistors

flame retardant, fusible and safety versions



### Specifications

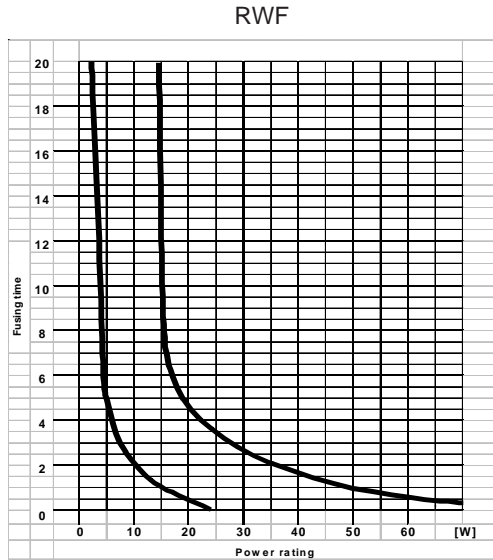
Type		RWF 5020 Fusible	RWS 5020 Safety
Styles		wirewound on core	5020 wirewound on ceramic
Power rating $P_{70}$	W		$P_{25}$ 2,2 $P_{40}$ 2,0 $P_{70}$ 1,6
Resistance range	$\Omega$	0R1 ... 1K	1R <sup>2)</sup> ... 100R
E-Series		Diverging values on request	
Tolerance	%	5, 10 (J, K)	5 (J)
Temperature coefficient	$10^{-6} \cdot K^{-1}$	$\pm 1000$	120 <sup>+50</sup>
max. cont. work. voltage	$V_{eff/RMS}$		$\sqrt{P_{70} \cdot R}$
Thermal resistance	K/W		100 <sup>1)</sup>
Climatic category			55 / 175 / 56
Temperature range	$^{\circ}C$		-55 ... 175
Endurance ( $P_{70}$ , 70 $^{\circ}C$ , 1000h)	$\left[\frac{\Delta R}{R}\right]$ %		3 avg
Damp heat, steady state	$\left[\frac{\Delta R}{R}\right]$ %		< 2
Insulation voltage	$V_{eff/RMS}$		1000
Insulation resistance			> 1000M $\Omega$ (dry)
Resistance to soldering heat	$\left[\frac{\Delta R}{R}\right]$ %		$\leq 0,25$
Short time overload ( $5 \cdot P_{70}/5sec$ )	$\left[\frac{\Delta R}{R}\right]$ %		$\leq 1\%$
Temperature shock			$\leq 0,25$
Solderability		CECC 00802 A (dip test)	
Board-bending-test		no interruption	

<sup>1)</sup> Thermal data according to DIN 44050 with solder pads as on next page.

<sup>2)</sup> Resistance values < 10R are flame retardant.

The interruption mechanism is not clearly defined and has to be tested in the final application!

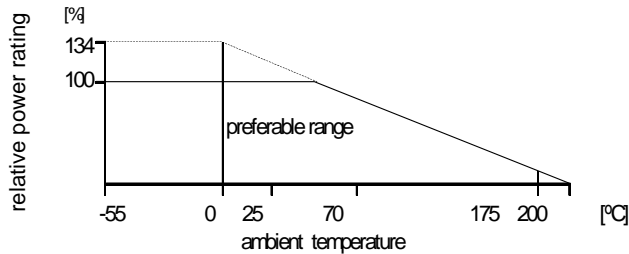
Fusing Characteristics



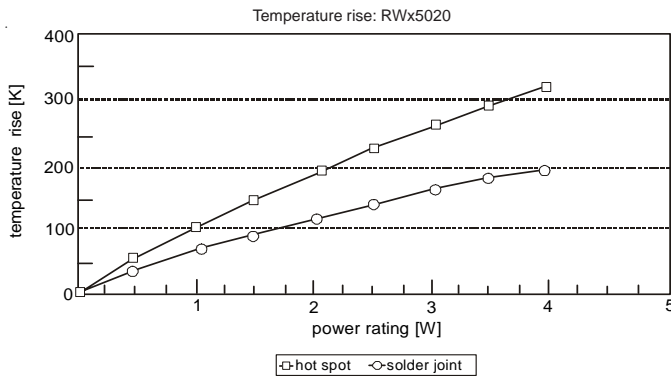
RWS

The special construction of resistance values >10R results in an immediate interruption when mains voltage (220/240V<sub>RMS</sub>) is applied. No flames, no explosion. After fusing the resistance values is >100Kohm. For other voltages test suitability in the application! Resistance values <10R are flame retardant. The interruption mechanism is not clearly defined and has to be tested in the final application!

Derating:

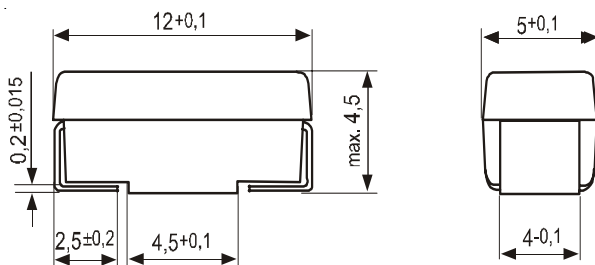


Temperature rise:

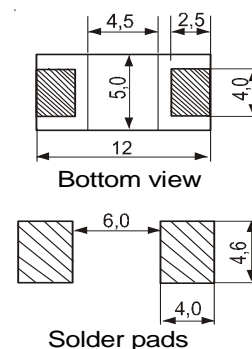


Part mounted on FR 4, pads as recommended, copper layer 35 μm

Dimensions in mm:



recommended solder pads:



Marking: Resistor: Printed in clear: Type - Value - Tolerance  
Package additional Batch-Nr. - Production date

Packaging: Blister tape 24 mm antistatic / 1.500 pcs on reel 330 mm Ø

Ordering example: RWF5020 J K - 13 10R  
Type Tolerance blister tape reel TC reel diameter R-value