

## Specifications



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



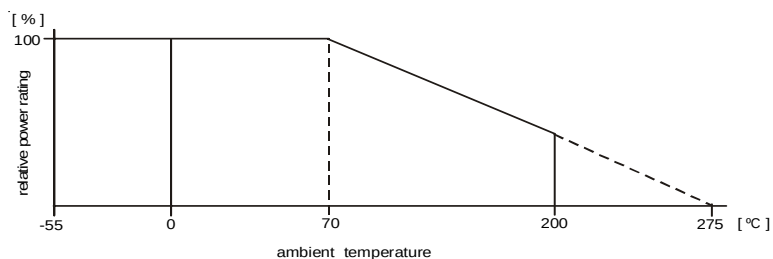
## SMD Power Metal film resistors

## Specifications

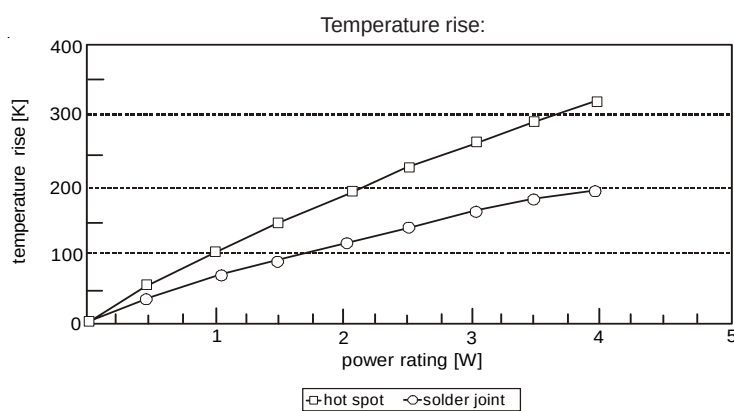
| Type                                              |                                      | RWP 5020                                                     |                |
|---------------------------------------------------|--------------------------------------|--------------------------------------------------------------|----------------|
| Style                                             |                                      | 5020                                                         |                |
| Power rating $\vartheta_o = 200^{\circ}\text{C}$  | W                                    | $P_{25}$ 2,2<br>$P_{40}$ 2,0<br>$P_{70}$ 1,6                 |                |
|                                                   |                                      | higher power depends on mounting technology                  |                |
| Tolerance                                         | %                                    | 1                                                            | 5              |
| Resistance range                                  | $\Omega$                             | 10R ... 1M                                                   | 1R0 ... 1M     |
| Temperature coefficient                           | ppm $\text{K}^{-1}$                  | $\pm 50$                                                     | $\pm 200$      |
| E-Series                                          |                                      | E 96                                                         | E 12 preferred |
| max. cont. work. voltage                          | $V_{\text{RMS}}$                     | 500                                                          |                |
| Thermal resistance                                | K/W                                  | 90 <sup>1)</sup>                                             |                |
| Insulation voltage (1 min.)                       | $V_{\text{RMS}}$                     | 1000                                                         |                |
| Insulation resistance                             |                                      | > 1000M $\Omega$ (dry)                                       |                |
| Climatic category                                 |                                      | 55/175/56                                                    |                |
| Temperature range                                 | $^{\circ}\text{C}$                   | -55 ... 175                                                  |                |
| Endurance<br>( $P_{70}$ , 70°C, 1000h, intermed.) | $\left[\frac{\Delta R}{R}\right] \%$ | $\leq 1,5$                                                   |                |
| Damp heat, steady state                           | $\left[\frac{\Delta R}{R}\right] \%$ | $\leq 1,5$                                                   |                |
| Resistance to soldering heat                      | $\left[\frac{\Delta R}{R}\right] \%$ | $\leq 0,25$                                                  |                |
| Short time overload (5 * $P_{70}$ /2sec)          | $\left[\frac{\Delta R}{R}\right] \%$ | $\leq 1\%$                                                   |                |
| Temperature shock                                 |                                      | $\leq 0,25$                                                  |                |
| Board-bending-test                                |                                      | no interruption                                              |                |
| Solderability                                     |                                      | suitble for wave and reflow soldering in acc. with CECC 0082 |                |

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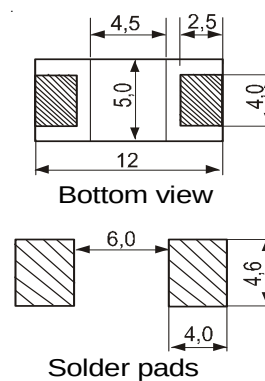
Derating:



Temperature rise:

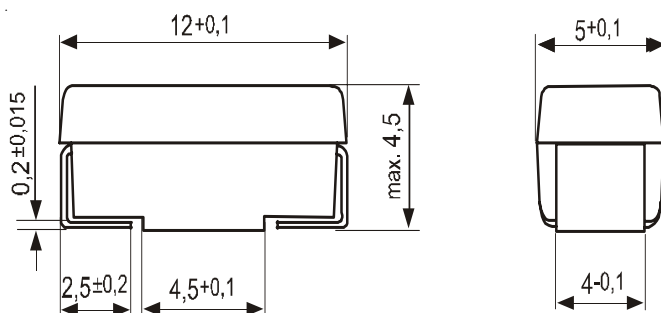


Recommended solder pads:



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

Dimensions in mm:



Marking:

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

Packaging:

Blisertape 24 mm antistatic / 1.500 pcs on reel 330 mm Ø

Ordering example:

|          |           |                   |    |               |         |
|----------|-----------|-------------------|----|---------------|---------|
| RWP 5020 | F         | K                 | -  | 13            | 10K     |
| Type     | Tolerance | blister tape reel | TC | reel diameter | R-value |

