

# ISA-PLAN®- Precision Resistor Type PMD

Spec Sheet R521-1/2 Dec 97

technical data	
resistance range	10 mOhm - 2 Ohm
tolerances	1 %, 5 %
temperature coefficient ( TCR / R > 10 mOhm )	< 50 ppm/K ( 20 °C to 60 °C )
applicable temperature range	-55 °C to +140 °C
load capacity	2 W
internal heat resistance	Rthi < 15 K/W
dielectric withstanding voltage	100 V AC
inductance ( R = 100 mOhm )	< 10 nH
stability ( at nominal load and Tk = 95 °C )	deviations < 0.5% after 2000h

Remarks: - Standard resistance values according to E12 with the additional values of 2 and 5  
 - Minimum quantity of other values on request

The resistor type **PMD** is the 2-terminal version of the PMA type for resistance values above 10 mOhm (see also data sheet R501). It has been developed especially for current sense applications in SMD-circuits and power modules.

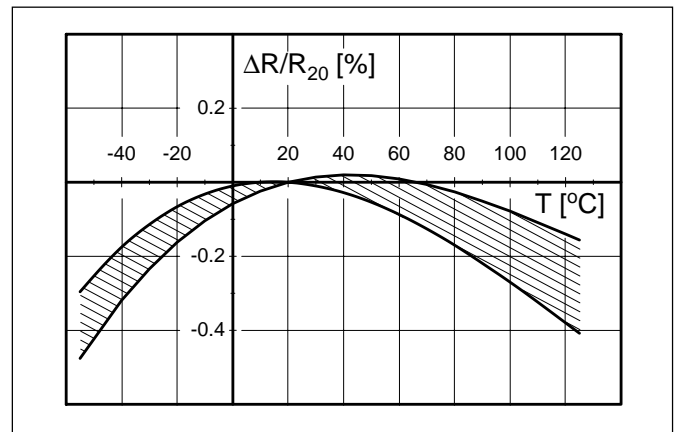
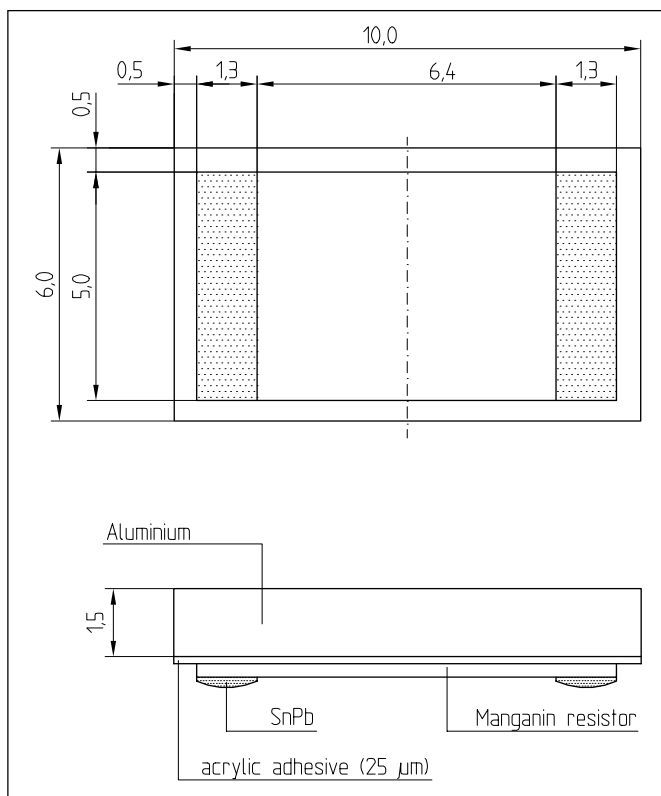
The resistor is designed for flip-chip mounting. All standard soldering processes like reflow-, infrared-, vapor phase-, dip- and wave soldering can be used.

With suitable designed solder pads on the pc-board the component is self aligning due to the capillary effect, which results in very good solder joints and in a mechanical and optical basis.

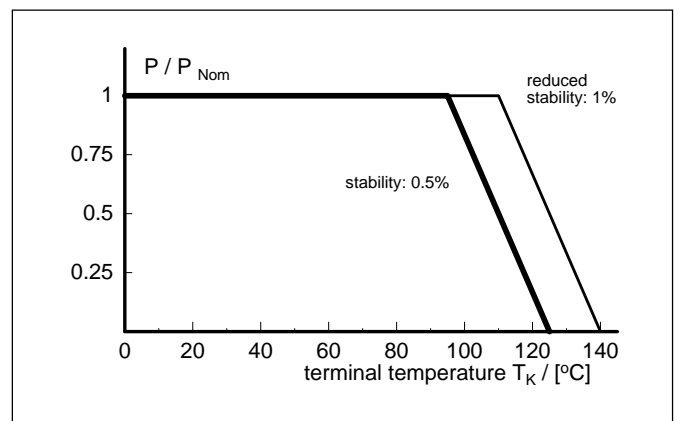
The heat which is generated by the measuring current is conducted very efficiently to the pc-board via the heat conductive substrate and the solder joints.

Using a high thermal conductive substrate the load capacity can even be increased above the specified value.

The use of bulk metal foil of **MANGANIN** and an optimized etch structure guarantees an excellent long term stability, low inductance, low TC value and high pulse power rating.



Temperature dependence of the electrical resistance of ISA-PLAN Resistors



dimensions (mm)

power derating curve

**Package information****-Tape and reel:**

16mm belt according to DIN IEC 286-3

**- Chiptray**

on request

**ordering example: PMD - R470 - 5**

type	resistance value	tolerance
PMD	470 mOhm	5 %

( Technical modifications reserved )