

# 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.

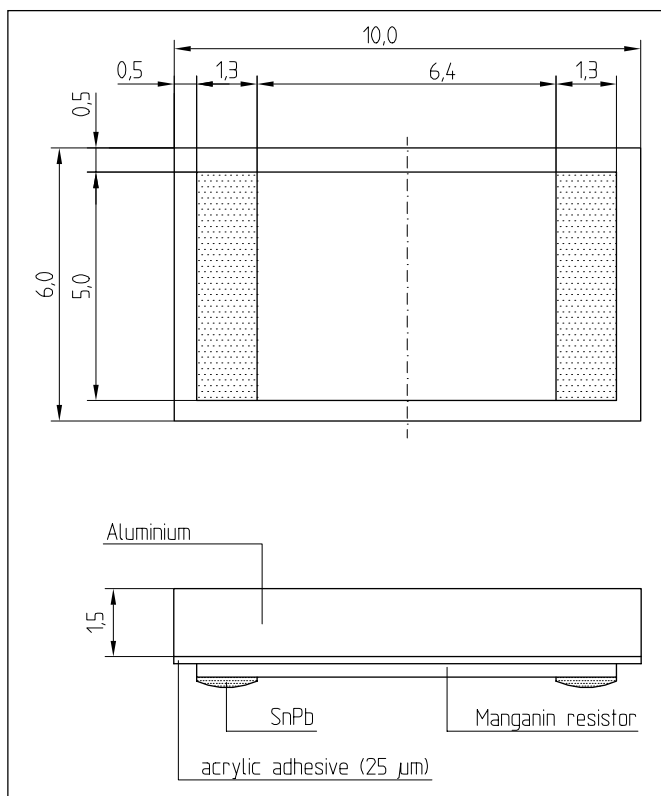
The resistor is designed for flip-chip mounting. All standard soldering processes like reflow-, infrared-, vapor phase-, dip- and wave soldering can be used.

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.

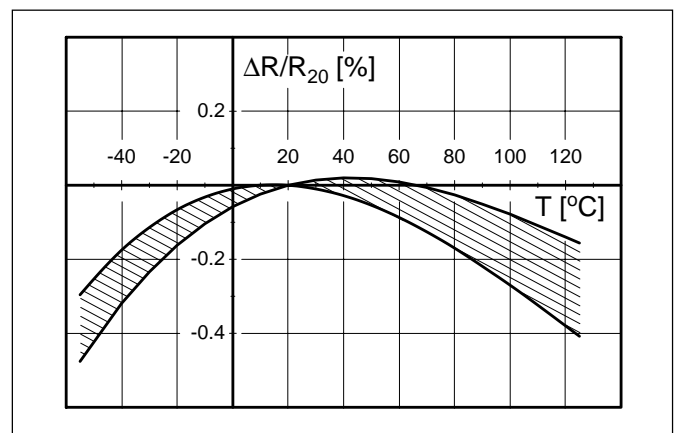
The heat which is generated by the measuring current is conducted very efficiently to the pc-board via the heat conductive substrate and the solder joints.

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

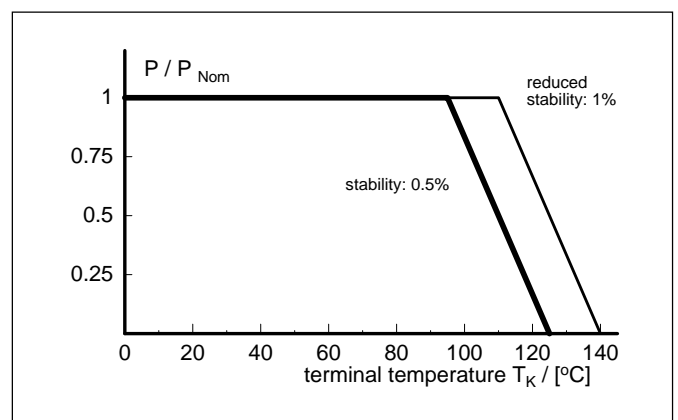
The use of bulk metal foil of **MANGANIN** and an optimized etch structure guarantees an excellent long term stability, low inductance, low TC value and high pulse power rating.



dimensions (mm)



Temperature dependence of the electrical resistance of ISA-PLAN Resistors



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 )

**ISABELLENHÜTTE Heusler GmbH KG**

35664 Dillenburg P.O.Box 1453 Phone ++49 27 71/9 34-0 Telefax ++49 27 71/2 30 30