

ISA-PLAN®- Precision Resistor Type PSB

Spec Sheet R161-1/2 July 97

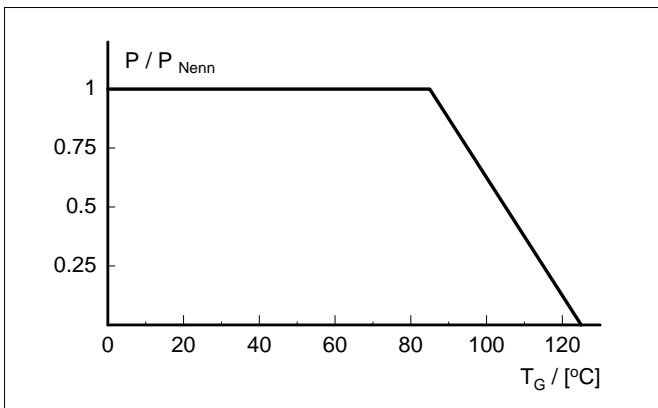
Technical Data

Resistance range	5 mOhm - 1 Ohm
Tolerances	1 %, 5 %
Temperature coefficient (R > 20 mOhm)	< 50 ppm/K (20 °C to 60 °C)
Applicable temperature range	-55 °C to +125 °C
Load capacity	10 W with heatsink provided
Thermal resistance to aluminum base plate	R _{th} < 4 K/W
Dielectric withstanding voltage	100 V AC
Inductance (R = 10 mOhm)	< 10 nH
Stability (nominal load at 70 °C)	deviation < 0.5% after 2,000 h

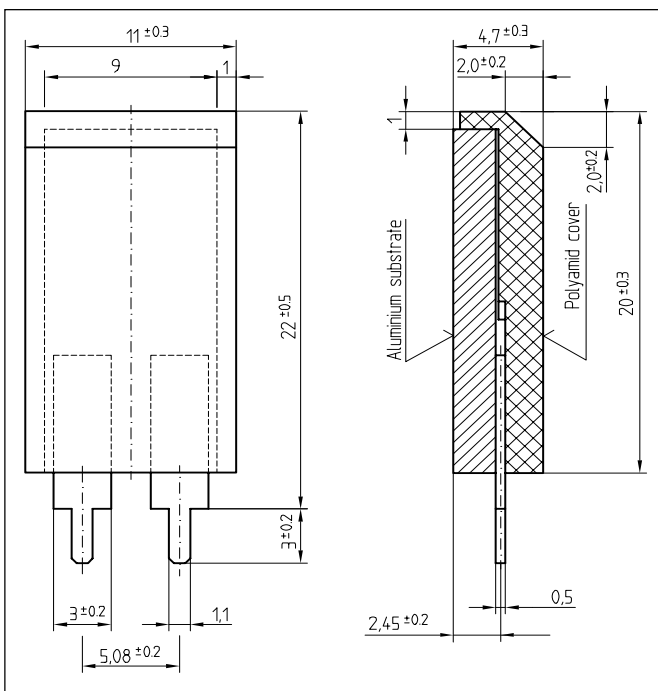
Remarks:

- Standard resistance values according to E6 with the additional values of 2 and 5
- Minimum quantity of other values on request
- Tolerance 0.5% for values of 10 mOhm up

Resistor type **PSB** was developed as an economic alternative to the types PBH and PBV. With the covering cap of a highly temperature-resistant thermoplastic, the total thickness corresponds with that of customary power semiconductors.



power derating curve



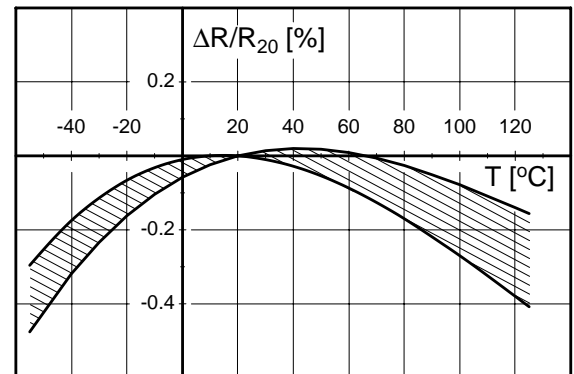
special terminal F1

dimensions (mm)

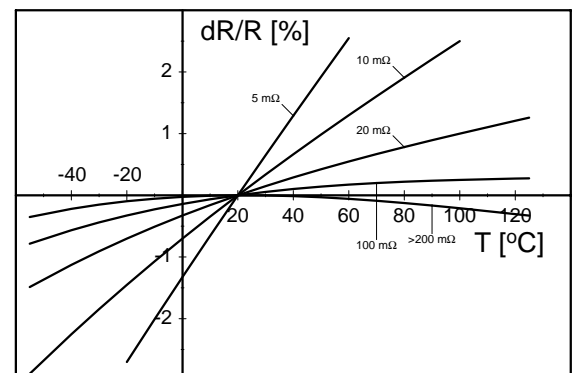
With the modular dimension of 5.08 mm, the resistor is fully compatible with the commonly known semiconductor case TO-220.

With elimination of the bore initially intended to increase the load capacity, assembly is performed by spring clamping to the heatsink.

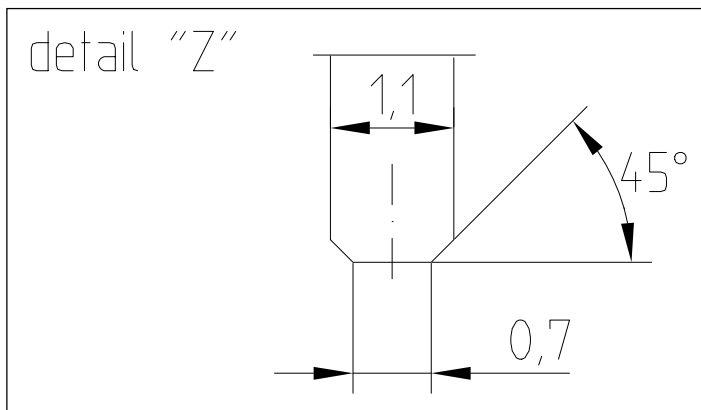
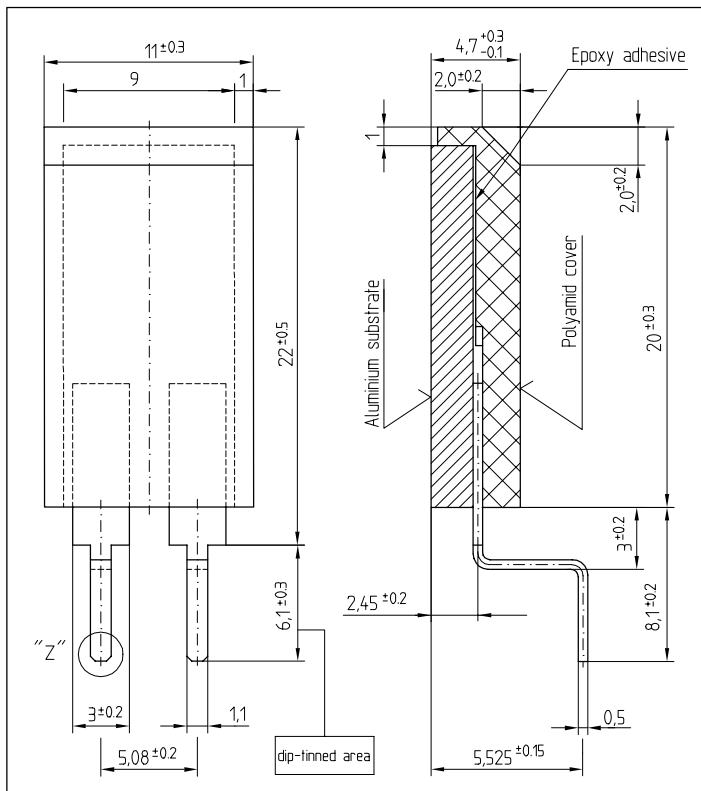
The resistor lends itself well for many applications in power electronics as well as automotive electronics based on its extremely low inductance and simultaneously good temperature coefficient, good long-term stability and high load capacity.



Temperature dependence of the electrical resistance of ISA-PLAN Resistors



Change of the R(T)-curve to the TCR of copper terminals for very low ohmic 2-terminal-resistors



standard terminal F4

ordering example: PSB - R050 - F4 - 5			
type	resistance value	terminal	tolerance
PSB	50 mOhm	F4	5 %

(Technical modifications reserved)