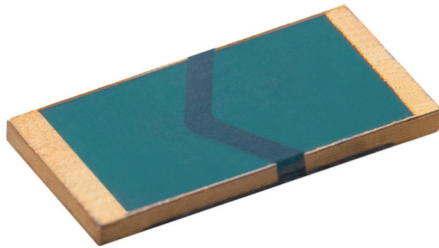




## ISA-PLAN® // PRECISION RESISTORS



### VMP-NA // Au-plated Size 2010



#### Features

- Au-plated terminals
- 2 W permanent power at 90 °C
- Constant current up to 9 A (25 mOhm)
- Small size (2010)
- High pulse power rating
- Excellent long-term stability
- Mounting: conductive adhesive / soldering
- RoHS 2011/65/EU compliant



#### Applications

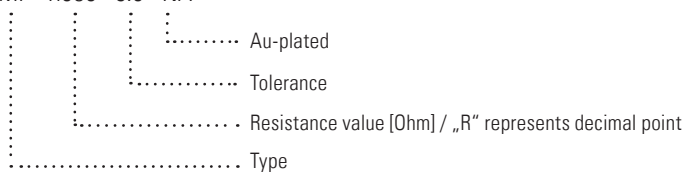
- Current sensor for power hybrid applications
- Control systems for the automotive market
- Power modules
- Frequency converters
- Switch mode power supplies

#### Technical data

Resistance values	<b>mOhm</b>	25 / 80
Tolerance	<b>%</b>	1 / 5
Temperature coefficient (20-60 °C)	<b>ppm/K</b>	<20
Applicable temperature range	<b>°C</b>	-55 to +170
Power rating	<b>W</b>	2
Internal heat resistance (R <sub>thi</sub> )	<b>K/W</b>	<40
Dielectric withstanding voltage	<b>V AC/DC</b>	200
Inductance	<b>nH</b>	<2
Stability (Nominal load) deviation after 2000h, T <sub>k</sub> = Terminal temperature		<0.5 % (T <sub>k</sub> =60 °C) <1.0 % (T <sub>k</sub> =90 °C)

#### Ordering code

VMP - R080 - 5.0 - NA

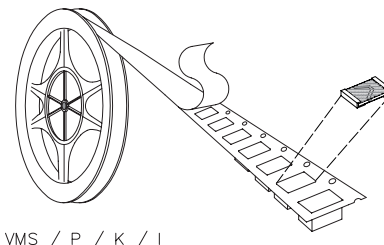




VMP-NA // Size 2010

**Tape and reel information**

Specification		DIN EN 60286-3
Tape width	<b>mm</b>	12
Reel size	<b>inch</b>	13
Parts per reel	<b>pcs</b>	12500
Packaging weight	<b>g</b>	481



VMS / P / K / I

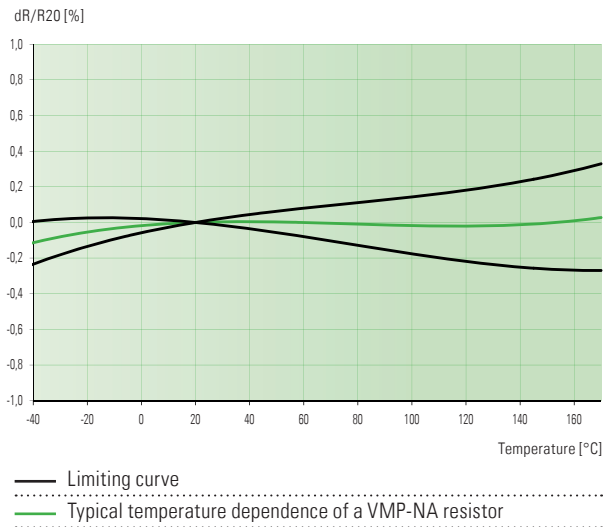
**Specification (\*parts tested at soldered condition)**

Parameters	Test conditions	Specified values*
Temperature Cycling	1000 cycles (-55 °C to +150 °C)	±0.5 %
Low Temperature Storage and Operation	-65 °C for 24 h	±0.2 %
Resistance to Soldering Heat	MIL-STD-202 method 210	±0.1 %
Moisture Resistance	MIL-STD-202 method 106	±0.5 %
Mechanical Shock	100 g, 6 ms, 5 pulse	±0.1 %
Vibration, High Frequency	10 Hz - 2000 Hz	±0.2 %
Operational Life	2000 h, TK max at nominal load	±1.0 %
High Temperature Exposure	2000 h / 170 °C	±1.0 %
Bias Humidity	+85 °C, 85 r.F., 10 % Bias	±0.7 %

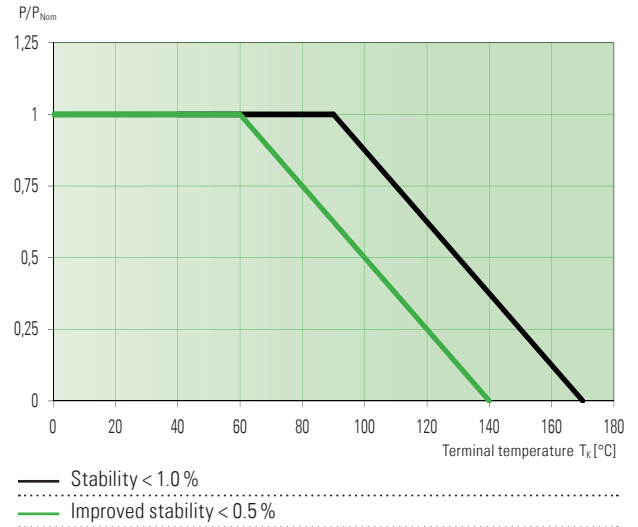


VMP-NA // Size 2010

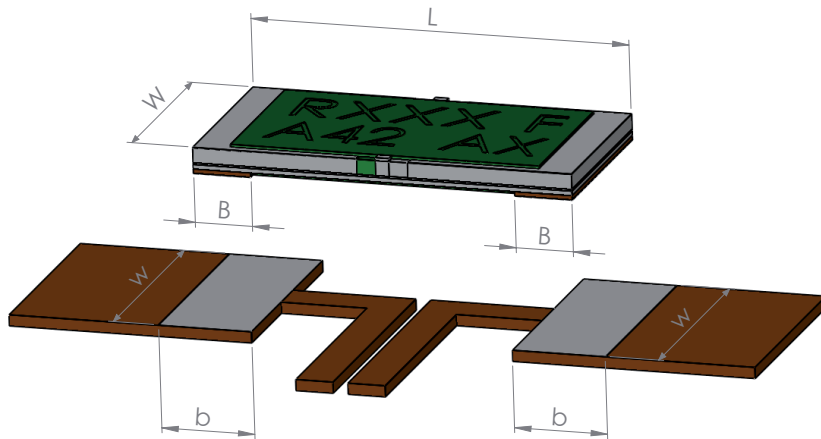
Temperature dependence of the electrical resistance



Power derating curve



Mechanical dimensions and pcb-layout proposal (Reflow-soldering) [mm]



type:	L	W	B
VMP-NA*	5.08	2.54	0,7

solder pad:	b	w
VMP-NA	1.25	3

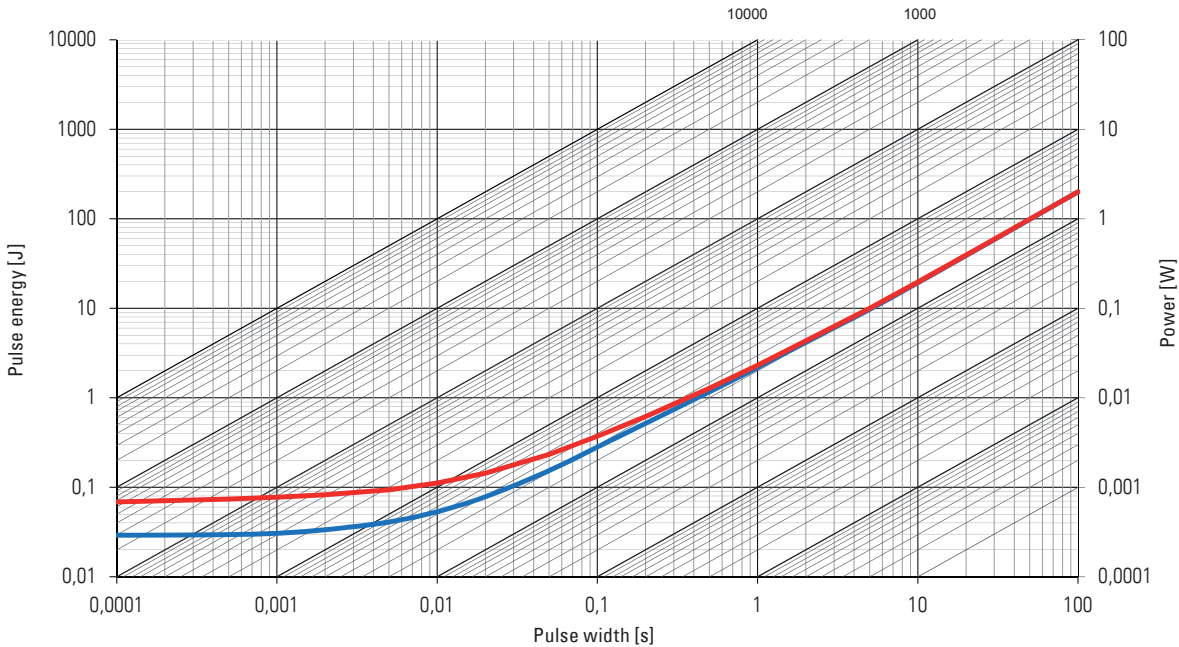
\* Detail drawing on request

Zeichnungsnummer: Z-YJ-713



VMP-NA // Size 2010

**Maximum pulse energy respectively pulse power for permanent operation**



- This curve is valid for the resistance value R025 only
- This curve is valid for the resistance value R080 only

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