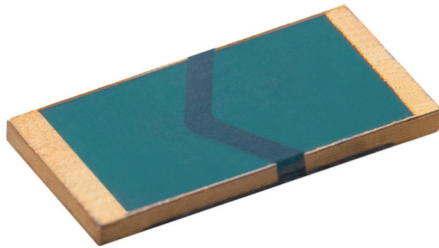




ISA-PLAN® // PRECISION RESISTORS



VMP-A // Au-plated Size 2010



Features

- Au-plated terminals
- 2 W permanent power at 110 °C
- Constant current up to 4.5 A (100 mOhm)
- Small size (2010)
- High pulse power rating
- Excellent long-term stability
- Mounting: conductive adhesive / soldering
- RoHS 2011/65/EU compliant



Applications

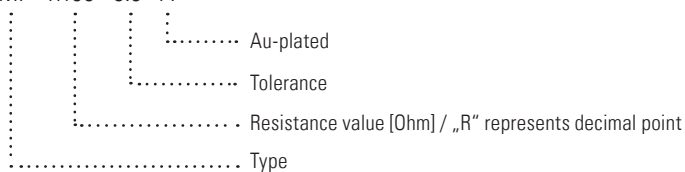
- Current sensor for power hybrid applications
- Control systems for the automotive market
- Power modules
- Frequency converters
- Switch mode power supplies

Technical data

Resistance values	mOhm	100 / 200
Tolerance	%	1 / 5
Temperature coefficient (20-60 °C)	ppm/K	<20
Applicable temperature range	°C	-55 to +170
Power rating	W	2
Internal heat resistance (R_{thi})	K/W	<30
Dielectric withstanding voltage	V AC/DC	200
Inductance	nH	<2
Stability (Nominal load) deviation after 2000h, T_K = Terminal temperature		<0.5 % ($T_K=80$ °C) <1.0 % ($T_K=110$ °C)

Ordering code

VMP - R100 - 5.0 - A

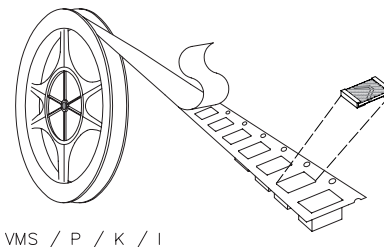




VMP-A // Size 2010

Tape and reel information

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



VMS / P / K / I

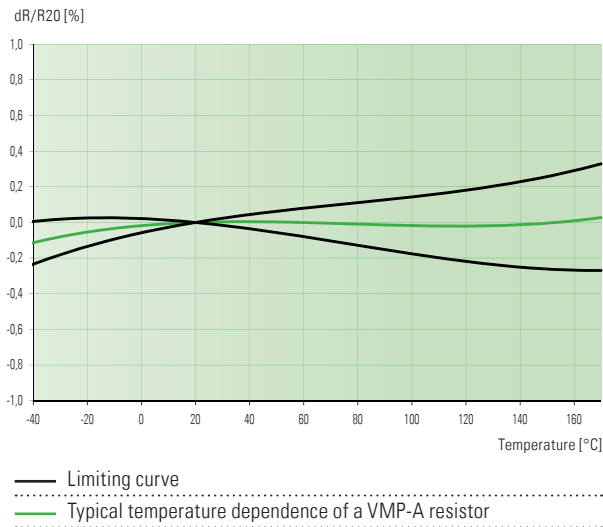
Specification (*parts tested at soldered condition)

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 %

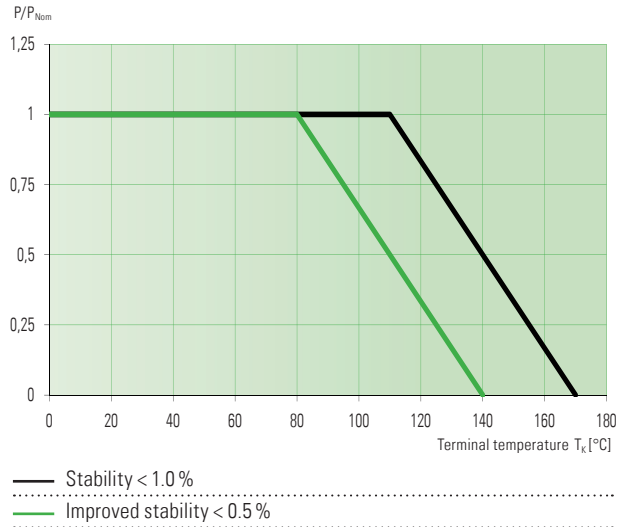


VMP-A // Size 2010

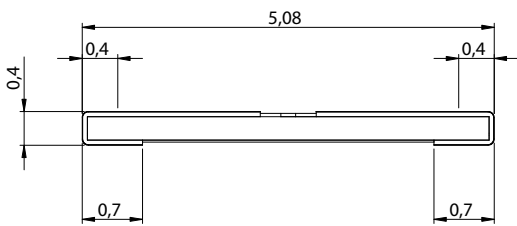
Temperature dependence of the electrical resistance



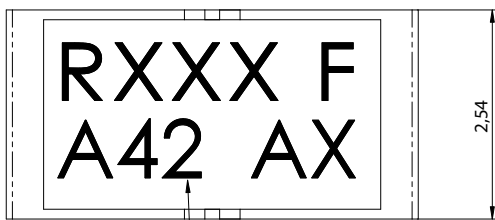
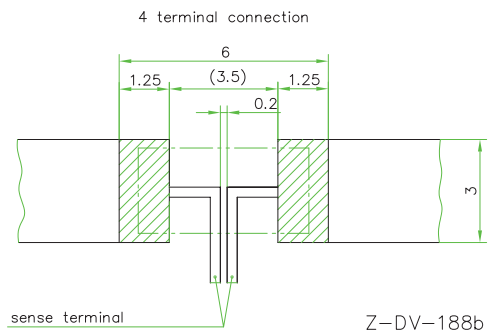
Power derating curve



Mechanical dimensions [mm]



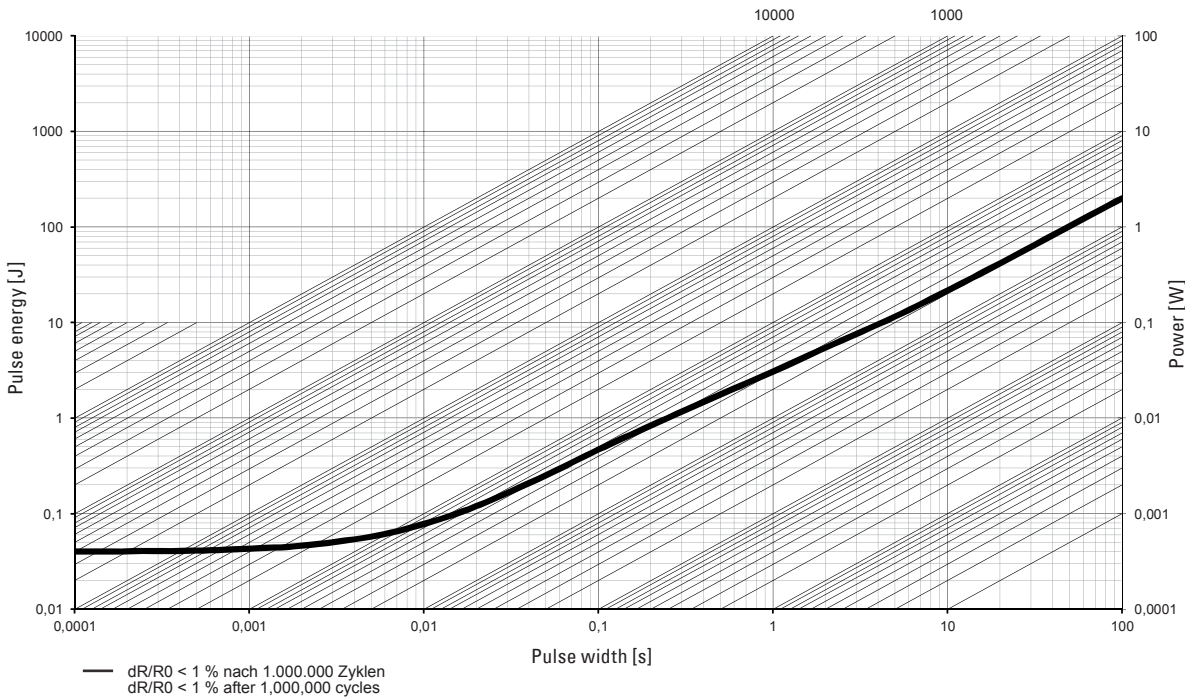
Pcb-layout proposal (Reflow-soldering) [mm]





VMP-A // Size 2010

Maximum pulse energy respectively pulse power for permanent operation



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