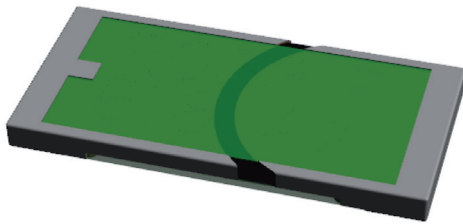




## ISA-PLAN® // PRECISION RESISTORS



### CMP // Size 2010



#### Features

- 2 W power rating at 70 °C
- Constant current up to 14 A (10 mOhm)
- High pulse power rating
- Good long-term stability
- Mounting: Reflow-, and IR-soldering
- AEC-Q200 qualification in preparation
- 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
- Driver for LED light systems

#### Technical data

Resistance values	<b>mOhm</b>	10 to 500
Tolerance	<b>%</b>	1 / 5
Temperature coefficient (20-60 °C)	<b>ppm/K</b>	<75
Applicable temperature range	<b>°C</b>	-65 to +170
Power rating <b>P<sub>70°C</sub></b>	<b>W</b>	2
Power rating <b>P<sub>120°C</sub></b>	<b>W</b>	1
Internal heat resistance (R <sub>thi</sub> )	<b>K/W</b>	<50
Dielectric withstanding voltage	<b>V AC/DC</b>	200
Inductance	<b>nH</b>	<3
Stability (P <sub>120°C</sub> ) deviation after 2000h T <sub>K</sub> = Terminal temperature		<1.0 % (T <sub>K</sub> =120°C)



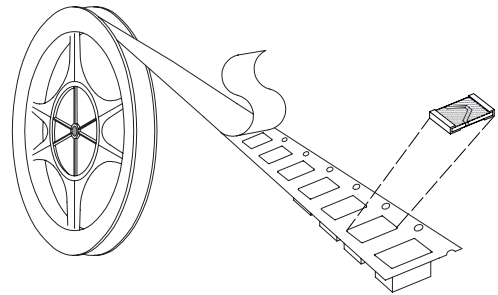
CMP // SIZE 2010

**Recommended solder profile**

Reflow- and IR-soldering				
Temperature	°C	260	255	217
Time	sec	peak	40	90

**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		



**Ordering code**

CMP - R010 - 1.0  
 ..... Tolerance  
 ..... Resistance value [Ohm] / "R" represents decimal point  
 ..... Type

**Specification**

Parameters	Test conditions	Specified values
Temperature Cycling	2000 cycles (-55 °C to +150 °C)	±0.5 %
Low Temperature Storage	-65 °C for 24 h	±0.1 %
Resistance to Soldering Heat	260 °C for 10 sec / 8h steam aging	±0.3 %
Moisture Resistance	MIL-STD-202 method 106	±0.3 %
Mechanical Shock	100 g, 6 ms half sine	±0.2 %
Vibration, High Frequency	10 g, 10-2000 Hz	±0.2 %
Operational Life	2000 h, T <sub>k</sub> max at rated power	±1.0 %, T <sub>k</sub> = 120 °C
High Temperature Exposure	2000 h / 170 °C	±1.0 %
Bias Humidity	+85 °C, 85 r.F., 1000 h, powered	±0.5 %

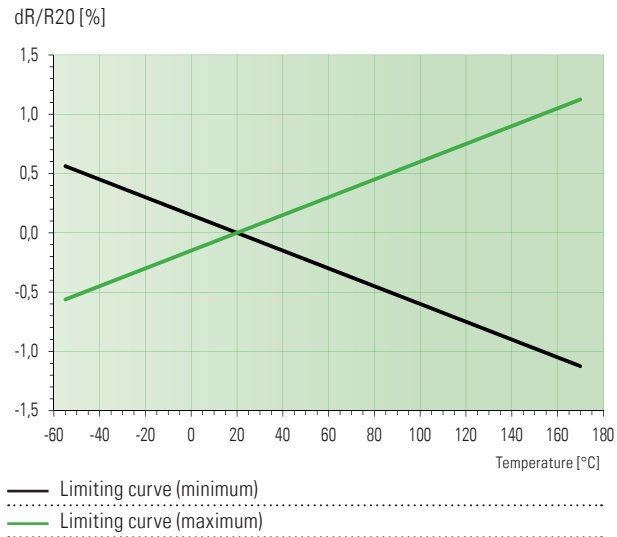
**Information**

Product status	Pre-series
Sample availability	Q3 2015
Qualification release acc. AEC-Q200	Q2 2016
Mass-production availability	Q4 2016 / certain ohmic values

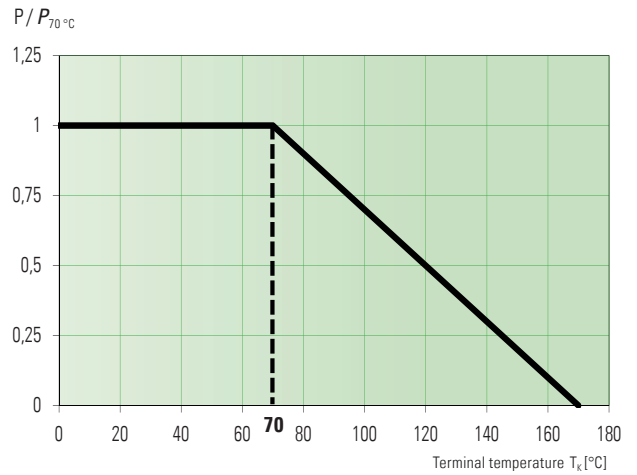


CMP // SIZE 2010

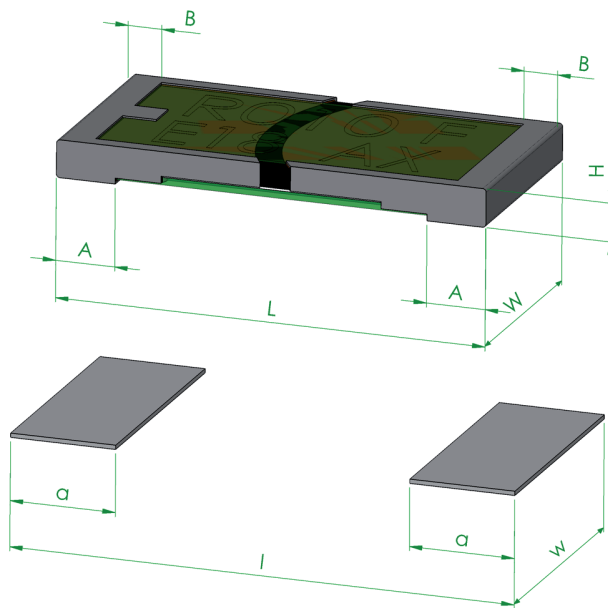
Temperature dependence of the electrical resistance of CMP resistors



Power derating curve



Mechanical dimensions [mm]



Z-YE-547

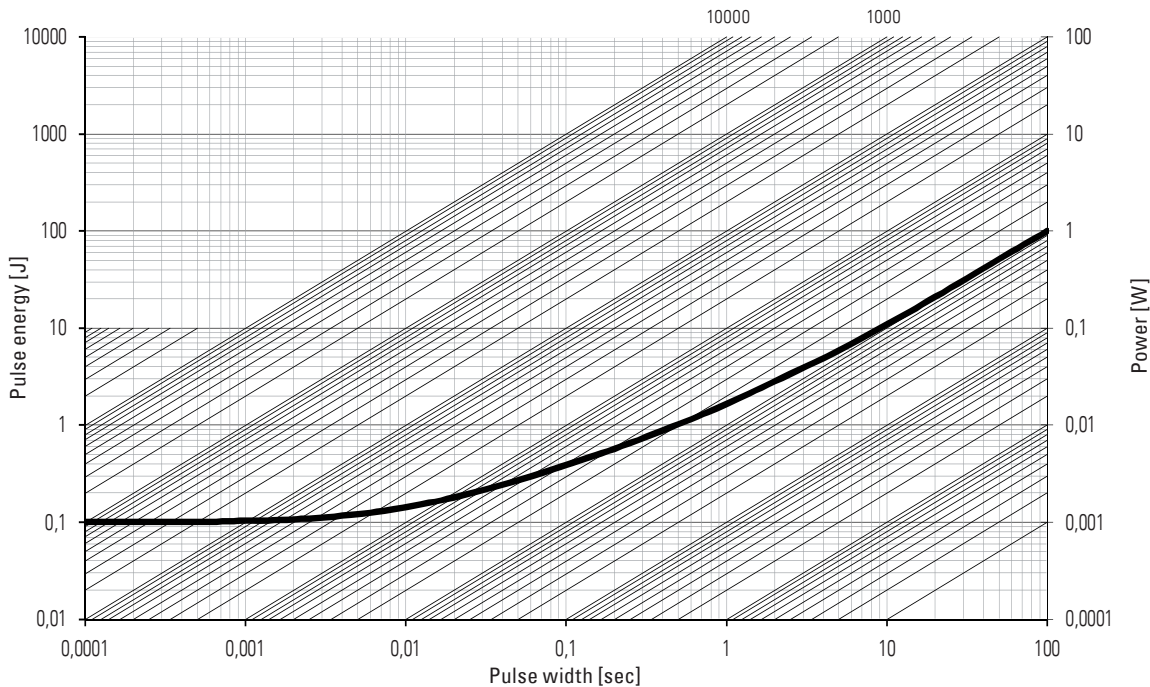
Type	L	W	H	A	B
CMP	5.08 ±0.2	2.54 ±0.2	0.4 ±0.15	0.7 ±0.2	0.4 ±0.15

Solder pad type	l	w	a
CMP	6.0	3.0	1.25



CMP // SIZE 2010

**Maximum pulse energy respectively pulse power for permanent operation 120 °C**



This curve is only valid for the resistance value R010.

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