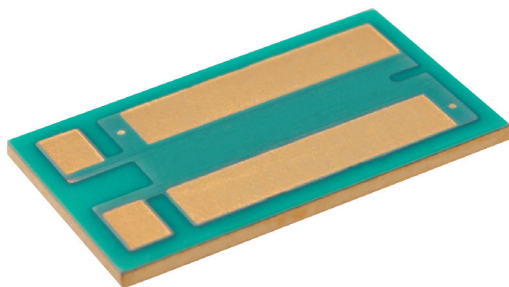




ISA-PLAN® // PRECISION RESISTORS



PLU (2439)



Features

- 5 W permanent power
- Continuous current load up to 70 A
- Resistor with Kelvin connection
- Au-plated bond pads
- Reverse side covered with gold flash
- Hybrid assembly: bonding and gluing
- AEC-Q200 qualified
- RoHS 2011/65/EU compliant



Applications

- Current sensor for power hybrid applications
- Frequency converters
- Power modules
- HDI (High Density Integration)

Technical data

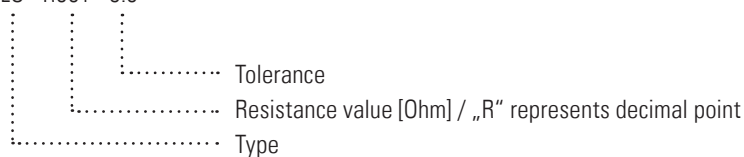
Resistance values	mOhm	1
Tolerance	%	5 ¹
Temperature coefficient (20-60 °C)	ppm/K	< 50 ¹
Applicable temperature range	°C	-55 to +170 ²
Power rating	W	5
Internal heat resistance (R _{thi})	K/W	< 4
Dielectric withstanding voltage	VAC	100
Inductance	nH	< 10
Stability (Nominal load) deviation after 2000h, T _K = Terminal temperature		< 0.5 % (T _K =120 °C) < 1.0 % (T _K =150 °C)

¹ Exact value depends on bonding position

² See table on page 2

Ordering code

PLU - R001 - 5.0





PLU (2439)

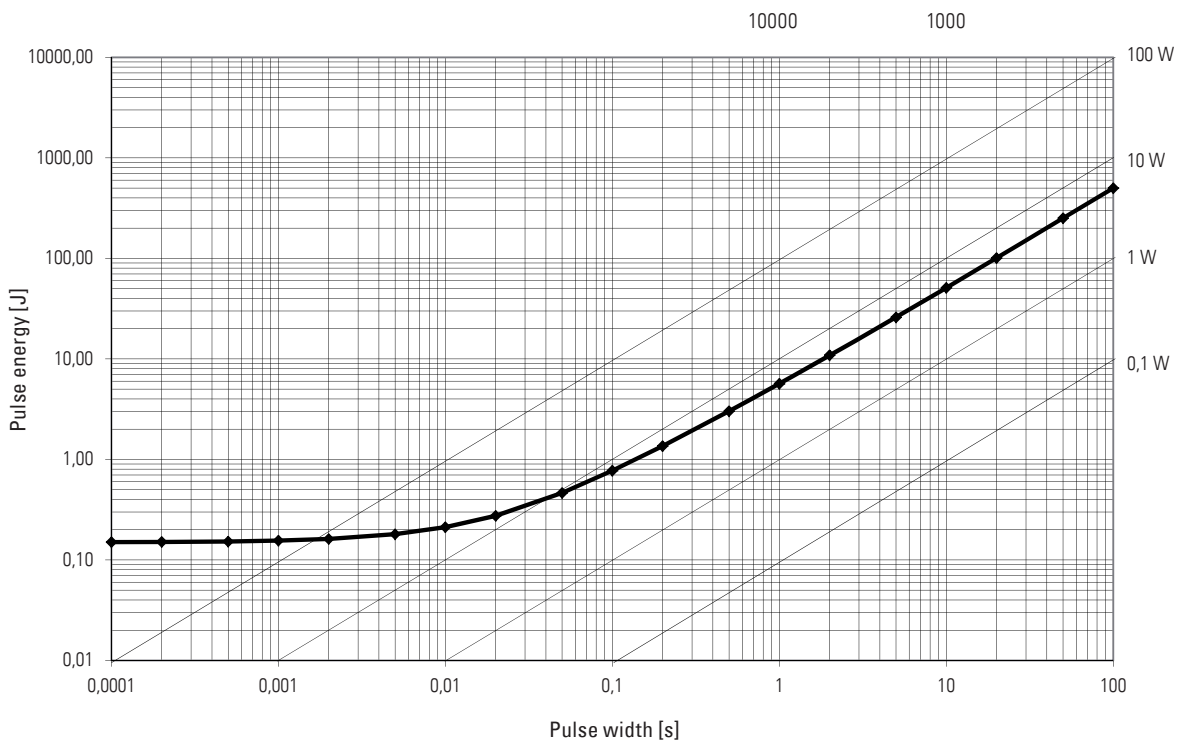
Tape and reel information

Specification	DIN EN 60286-3	
Tape width	mm	16
Parts per reel	pcs	3000

Specification

Parameters	Test conditions	Specified values
Temperature Cycling	2000 cycles (-55 °C to +150 °C)	±0.5 %
Low Temperature Storage and Operation	-65 °C for 24 h	±0.2 %
Resistance to Soldering Heat	260 °C for 10 sec / 8h steam aging	n.a.
Moisture Resistance	MIL-STD-202 method 106	±0.5 %
Mechanical Shock	100 g, 6 ms half sine	±0.1 %
Vibration, High Frequency	20 g, 10-2000 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., 1000 h	±0.7 %

Maximum pulse energy respectively pulse power for permanent operation

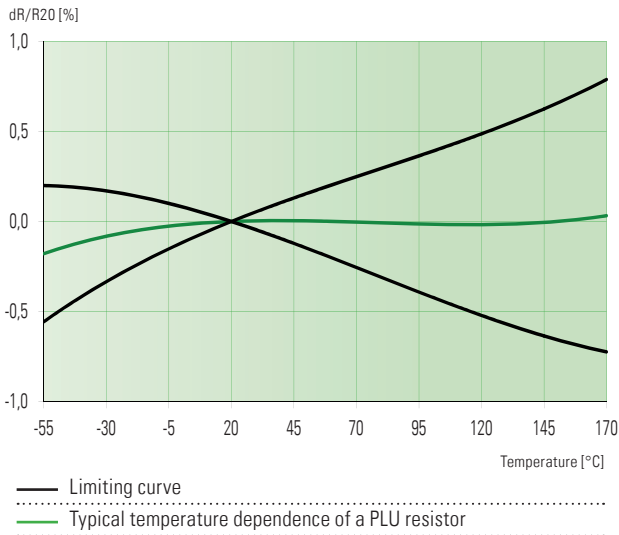




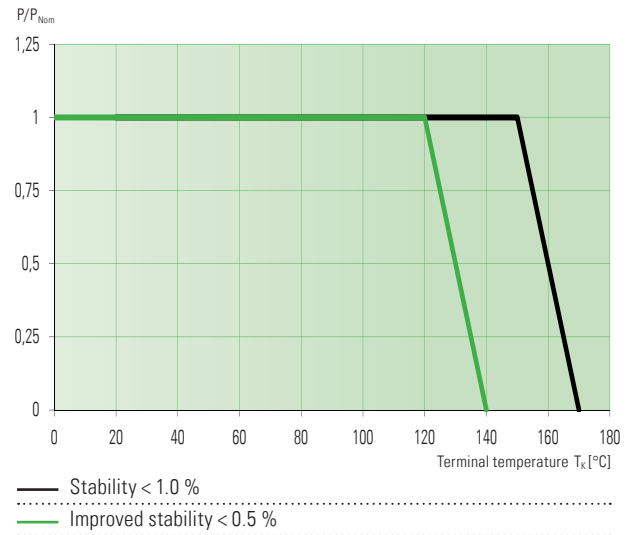
PLU (2439)

Temperature dependence of the electrical resistance

* Exact value depends on bonding position



Power derating curve



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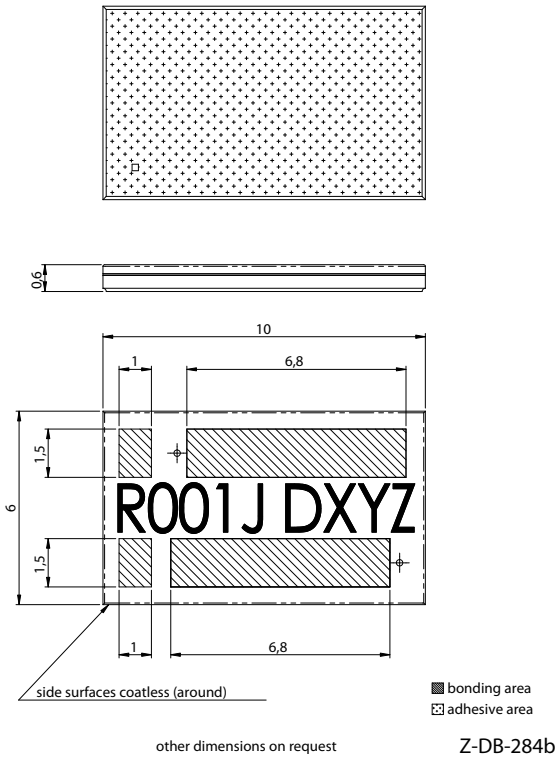
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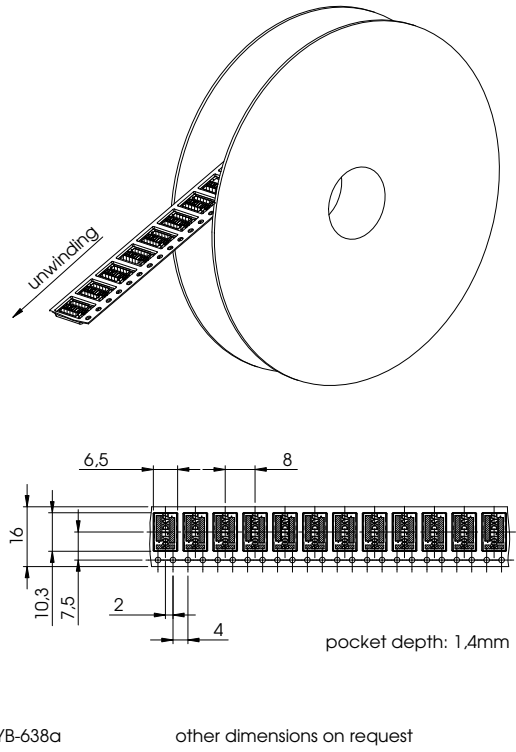


PLU (2439)

Mechanical dimensions [mm]



Tape and reel information [mm]



Proposal for bond-connection [mm]

