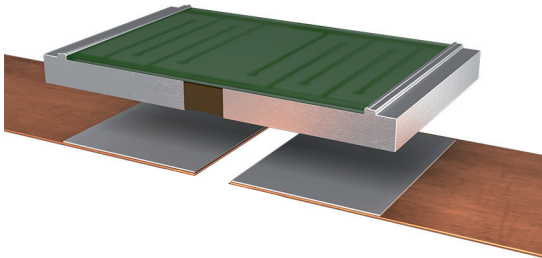




ISA-PLAN® // SNUBBER POWER RESISTOR

SMT-V // Size 2817

PRELIMINARY VERSION



Features

- 6 W power rating at 70 °C
- Excellent long-term stability
- High pulse power rating
- Mounting: Reflow-, and IR-soldering
- AEC-Q200 qualified
- RoHS 2011/65/EU compliant



Applications

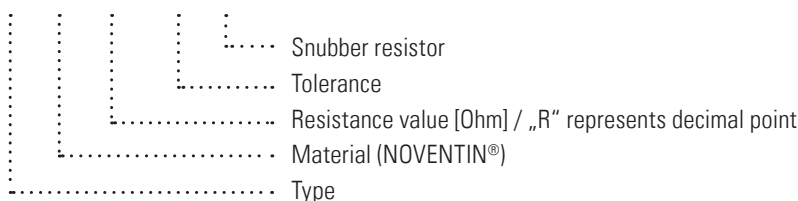
- Current sensor for power hybrid applications
- Control systems for the automotive market
- Power modules
- Frequency converters
- Switch mode power supplies
- Snubber circuits

Technical data

Resistance values	mOhm	17.5
Tolerance	%	10
Temperature coefficient (20-60 °C)	ppm/K	<100
Applicable temperature range	°C	-65 to +170
Power rating P_{70°C}	W	6
Power rating P_{90°C}	W	5
Internal heat resistance (R _{thi})	K/W	16
Dielectric withstanding voltage	V AC/DC	200
Inductance	nH	<3

Ordering code

SMT - V - R0175 - 10.0 - S



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SMT-V // Size 2817

Recommended solder profile

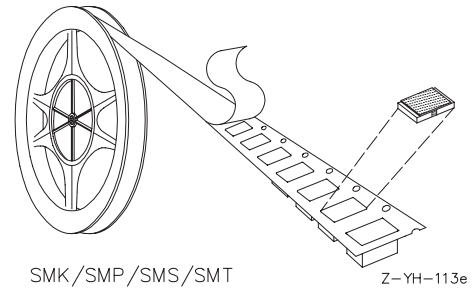
Reflow- and IR-soldering

Temperature	°C	260	255	217
Time	sec	peak	40	90

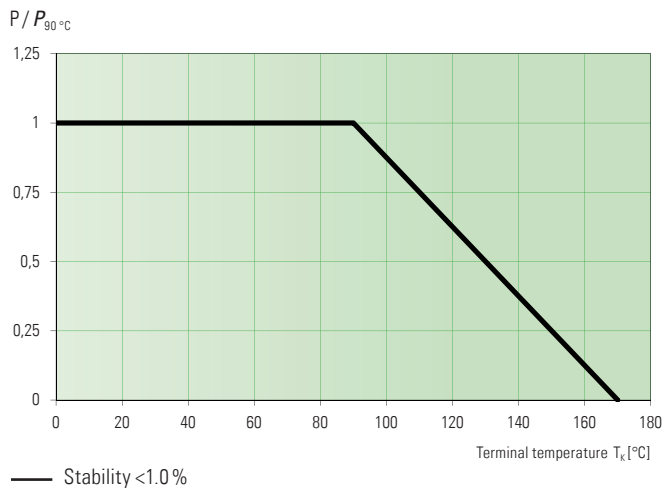
Slight deformations during soldering do not affect technical properties of the component.

Tape and reel information

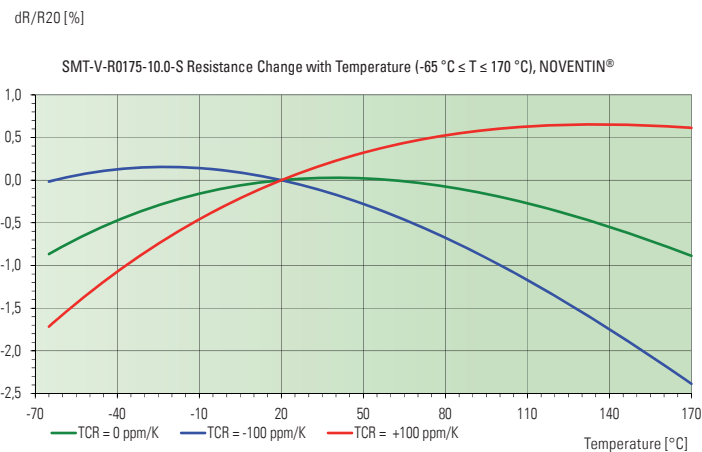
Specification	DIN EN 60286-3		
Tape width	mm	12	
Reel size	inch	13	
Parts per reel	pcs	5000	
Packaging weight	g	494	



Power derating curve at 90 °C

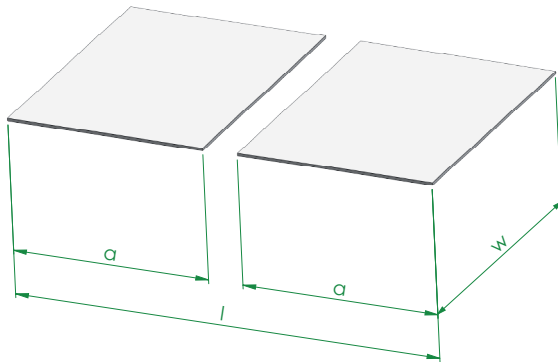
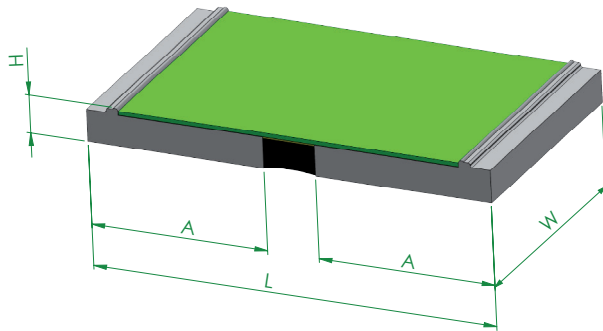


Temperature dependence of the electrical resistance of SMT resistors





Mechanical dimensions and pcb-layout proposal (Reflow-soldering) [mm] // Z-YM-431



type	L	W	H	A
SMT-V	7.1 ±0.2	4.2 ±0.1	0.8 ±0.3	3.1

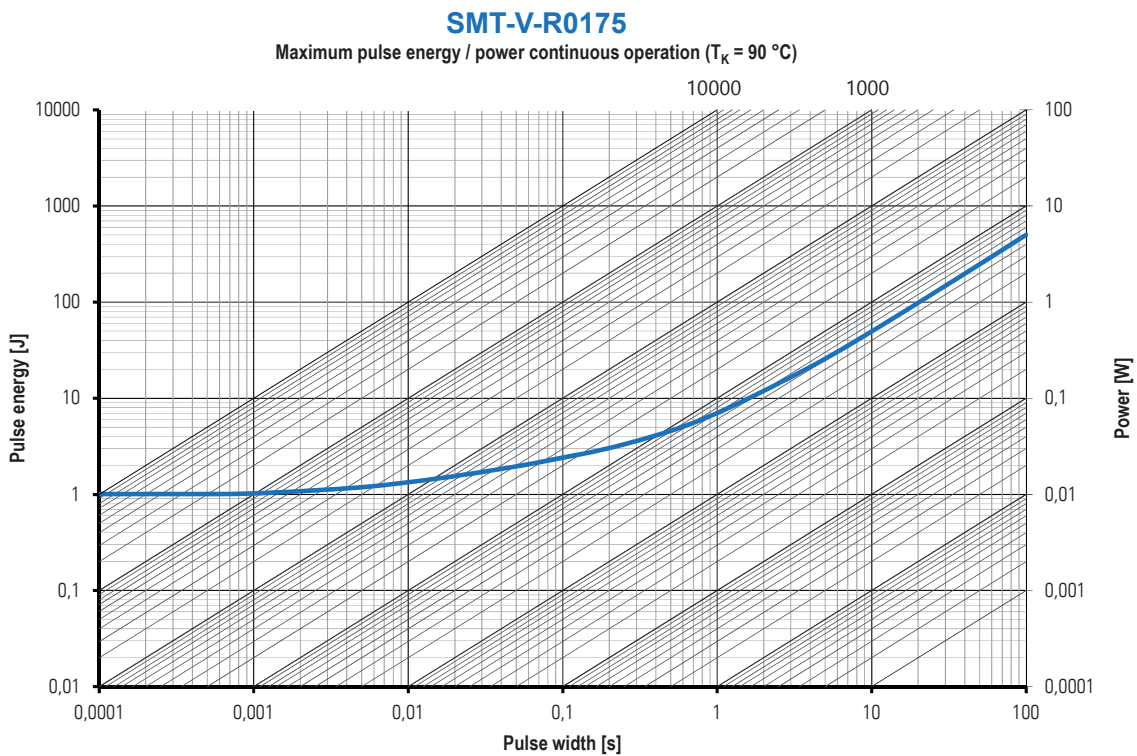
solder pad type:	l	w	a
SMT-V	7.4	4.6	3.4

Specification

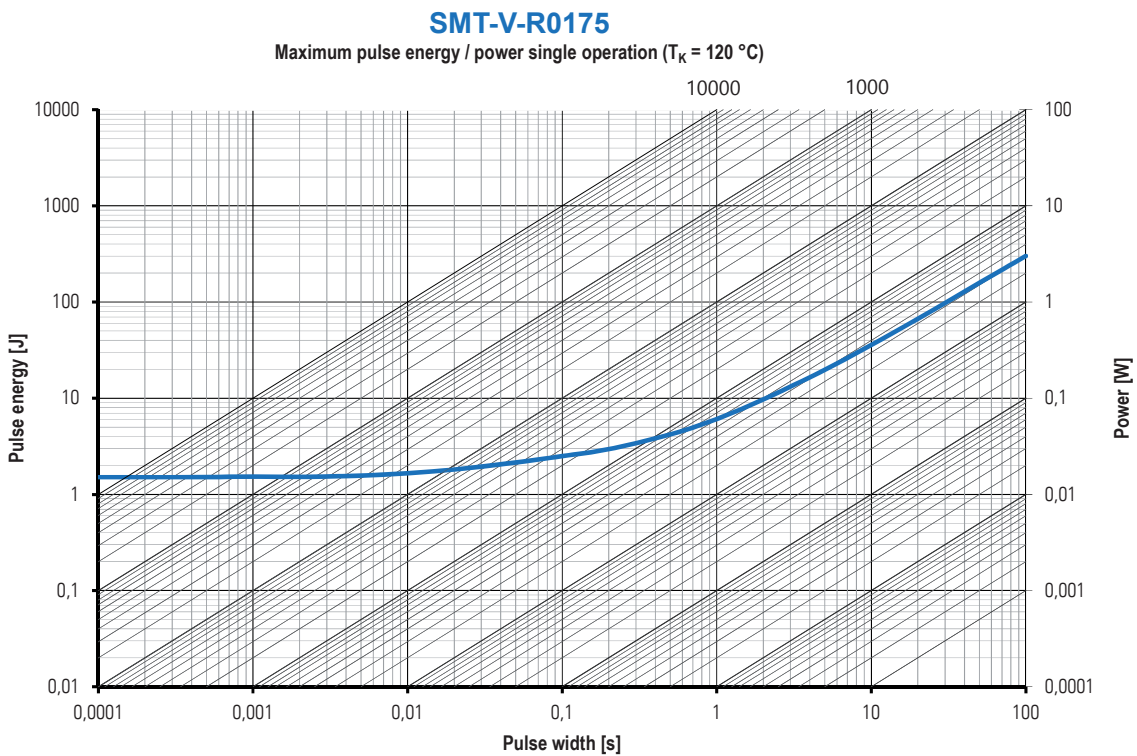
Parameters	Test conditions	Specified values
Temperature Cycling	2000 cycles (-55 °C to +150 °C)	±1.0%
Low Temperature Storage and Operation	-65 °C for 250 h	±0.1%
Resistance to Soldering Heat	260 °C for 10 sec / 8h steam aging	±0.3%
Mechanical Shock	100 g, 6 ms half sine	±0.1%
Vibration, High Frequency	10 g, 10-2000 Hz, 24 h each axis	±0.1%
Operational Life	2000 h, T _K max at rated power	±1.0%
High Temperature Exposure	2000 h / 170 °C	±1.0%
Bias Humidity	+85 °C, 85 r.F., 1000 h	±0.5%



Maximum pulse energy respectively pulse power for permanent operation



Example: Maximum pulse energy respectively pulse power single operation*, valid for 50 peak current pulses over lifetime



* the number of maximum permissible single operations over lifetime depends on the intended pulse energy and can be determined upon request