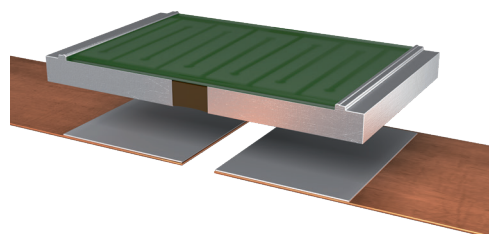


PRELIMINARY VERSION

PMT (2817)

ISA-PLAN® PRECISION RESISTOR



FEATURES

- Pulse power resistor
- Excellent pulse load capability
- Configuration as array possible
- Mounting: Reflow-, and IR-soldering
- AEC-Q200 qualification in process
- RoHS 2011/65/EU compliant



APPLICATIONS

- Power inverter for the automotive market
- Power modules
- Snubber circuits
- Circuit protection in filter applications
- Precharging / discharging applications

Technical data

Resistance values	Ohm	0.050 / 0.5 / 1 / 2.5 *
Tolerance	%	10
Applicable temperature range	°C	-65 to +170
Internal heat resistance (R_{thi})	K/W	22
Dielectric withstanding voltage	V AC/DC	200
Inductance	nH	<3
Stability (at rated power) deviation after 2000h	%	<0.5 ($T_k = 75^\circ\text{C}$)
T_k = Terminal temperature		<1.0 ($T_k = 105^\circ\text{C}$)

* For detailed information see table on page 2

Ordering code

PMT - R050 - 10.0

.....	Tolerance
.....	Resistance value [Ohm] / "R" represents decimal point
.....	Type

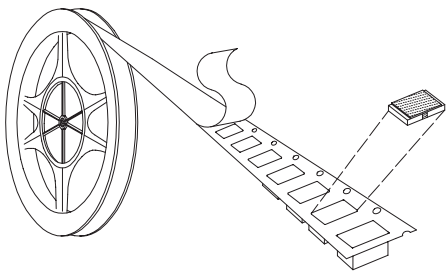
Information

Samples	R050 available
	R500-2R50 available in June 2025
AEC-Q200 qualification	available in August 2025
SOP	Q1-2026

Recommended solder profile

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

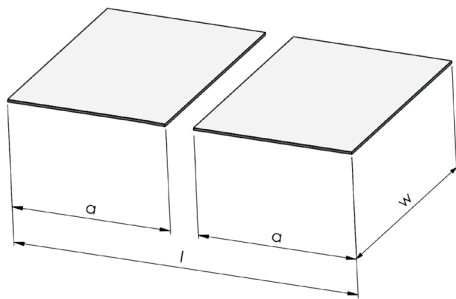
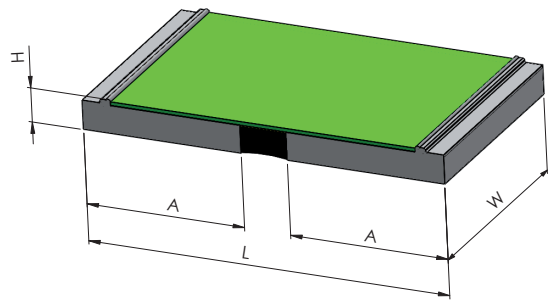
Slight deformations during soldering do not affect technical properties of the component.



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		

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



Type	L	W	H	A
PMT	7.1 ± 0.2	4.2 ± 0.1	0.8 ± 0.2	3.1

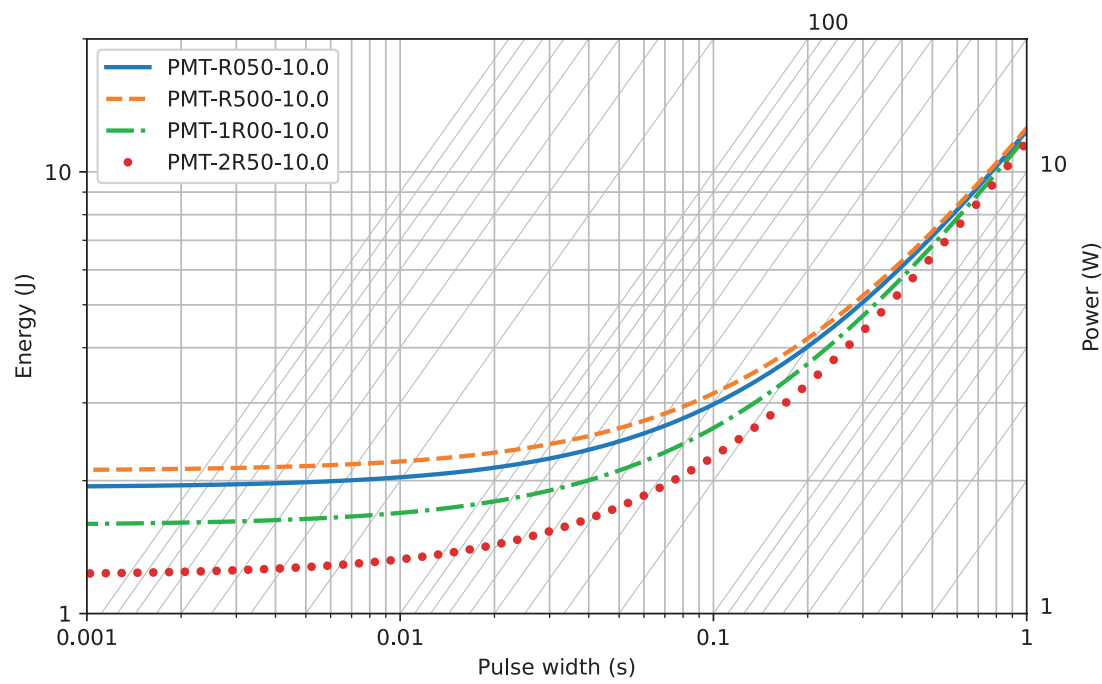
solder pad	l	w	a
PMT	7.4	4.6	3.4

Application examples

Load (J)	Array-Resistance (Ω)	Used Part	Array		#Shunts
			series	parallel	
1	0.025	PMT-R050-10.0	4	8	32
1	1	PMT-1R00-10.0	2	2	4
3	5	PMT-1R00-10.0	5	1	5
3	10	PMT-2R50-10.0	4	1	4
5	0.083	PMT-R500-10.0	1	6	6
5	0.5	PMT-R500-10.0	3	3	9
5	0.5	PMT-1R00-10.0	2	4	8
5	1.5	PMT-1R00-10.0	3	2	6
5	1.5	PMT-R500-10.0	6	2	12
10	5	PMT-2R50-10.0	6	3	18
10	10	PMT-2R50-10.0	8	2	16
25	10	PMT-1R00-10.0	20	2	40
50	35	PMT-2R50-10.0	28	2	56

Other configurations are also possible. Please contact us for further information or support for your application.

Maximum pulse energy and pulse power for a single event (@*T*_{max}=170°C)



Specification

Parameters	Test conditions	Specified values
Temperature Cycling	2000 cycles (-55 °C to +150 °C)	qualification in process
Low Temperature Storage and Operation	-65 °C for 24 h	
Resistance to Soldering Heat	260 °C for 10 sec / 8h steam aging	
Mechanical Shock	100 g, 6 ms half sine	
Vibration, High Frequency	20 g, 1-2000 Hz	
Operational Life	2000 h, <i>T</i> _k max at rated power	
High Temperature Exposure	2000 h / 170 °C	
Bias Humidity	+85 °C, 85 r.F., 1000 h	
Pulse load	tbd	

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