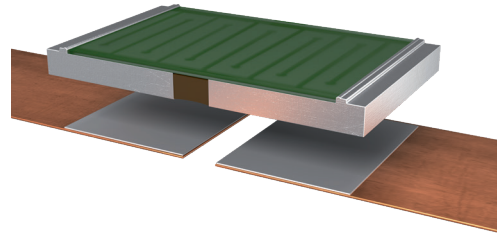




PRELIMINARY VERSION

PMT (2817)

ISA-PLAN® PULSE POWER 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
- Further resistance values and sizes on request



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

* For detailed information see array table on page 2

** For continuous load

Ordering code

PMT - R050 - 10.0

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

Information

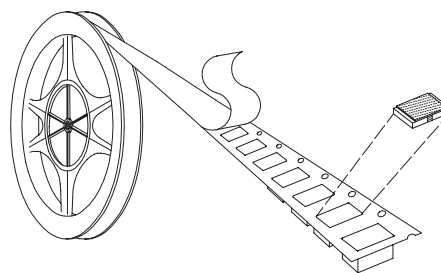
Samples	R050 available
	R500-2R50 available in March 2026
AEC-Q200 qualification	available in April 2026

Recommended solder profile

Reflow- and IR-soldering

Temperature	°C	260	255	217
Time	sec	peak	40	90

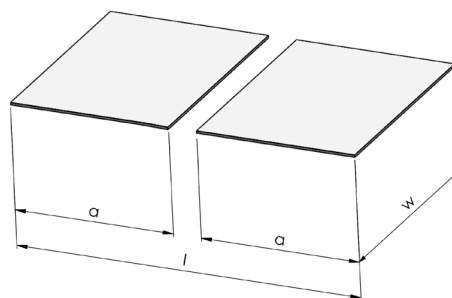
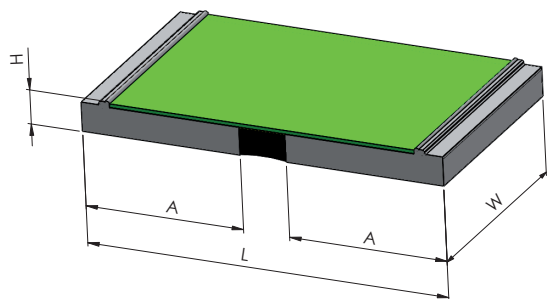
Slight deformations during soldering do not affect technical properties of the component.



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

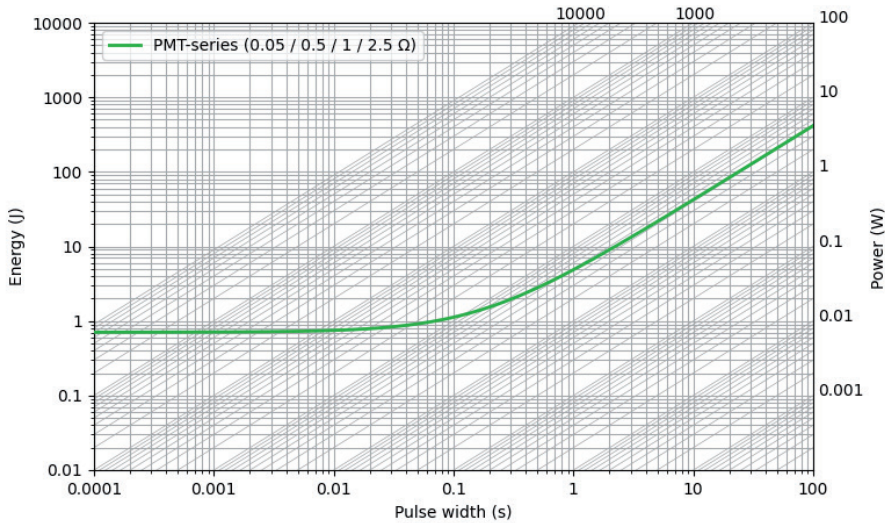
solder pad	l	w	a
PMT	7.4	4.6	3.4

Application examples

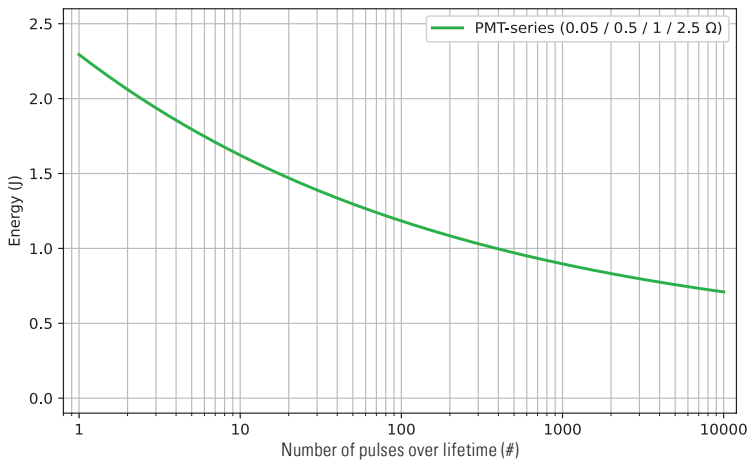
Load (J)	Array-Resistance (Ω)	Used Part	Array		#Resistors
			series	parallel	
1	0.025	PMT-R050-10.0	1	2	2
1	1	PMT-1R00-10.0	2	2	4
3	5	PMT-1R00-10.0	5	1	5
3	10	PMT-2R50-10.0	4	1	4
5	0.083	PMT-R500-10.0	1	6	6
5	0.5	PMT-R500-10.0	3	3	9
5	0.5	PMT-1R00-10.0	2	4	8
5	1.5	PMT-1R00-10.0	3	2	6
5	1.5	PMT-R500-10.0	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 (@ $T_{max}=170^{\circ}C$, $T_K = 70^{\circ}C$)



Max pulse energy for single pulse events (≤ 10 ms) when pulse events occur $< 10,000$ times over lifetime ($T_K = 70^{\circ}C$)



Number of pulses over lifetime	Energy
1	2.3
10	1.6
100	1.2
1,000	0.9
10,000	0.7

Specification

Parameters	Test conditions	Specified values
Temperature Cycling	2000 cycles (-40 °C to +125 °C)	-0.5% to 3.0%
Resistance to Soldering Heat	260 °C for 10 sec / 8 h steam aging	±0.1%
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	1000 h, 140 °C	-0.5% to 2.5%
High Temperature Exposure	2000 h, 140 °C	-0.5% to 2.5%
Bias Humidity	+85 °C, 85 r.F., unpowered 1000 h	-0.5% to 2.0%

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