

PCB Mount SPD Socket for Photovoltaic Systems (DC)

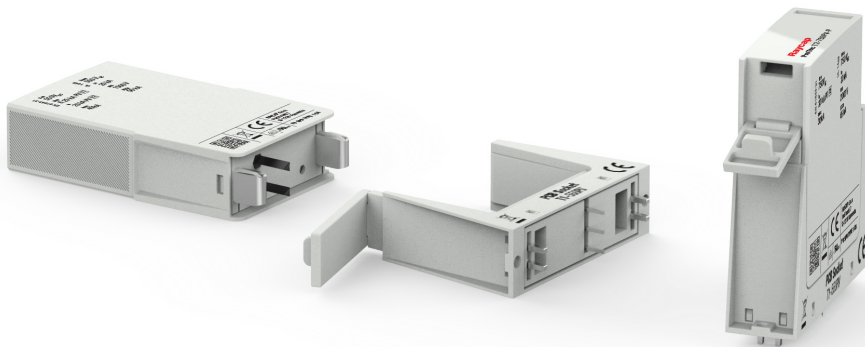


Lightning and Overvoltage Protection

PCB Socket T1 PV & PCB Socket T2 PV

Special features:

- For use with maximum continuous operating voltage (U_{CPV}) up to 750V modules
- Dual sets of two soldering pads for mechanical soldering
- Two additional mechanical fixation holes
- Voltage indicator socket
- Module locking mechanism
- Vibration and shock withstand capability
- Sensitive and reliable remote signaling contacts
- Fault indicator, green-no green
- Compact profile for printed circuit board (PCB) mounting



IEC 61643-31:2018

EN 61643-31:2019

UL 1449 5th Edition

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Raycap has developed the series of socket bases as an on-board printed circuit board (PCB) solution to optimally protect electronic equipment with efficient surge protection while keeping cost for installation down. With the constant demand for increased reliability of power systems, electronics manufacturers expect comprehensive turnkey solutions that are ready to be installed, but are effectively designed with optimum functionality. The key benefits of the PCB Socket Series are cost and space efficiency, elimination of manufacturing lead times, and maximum equipment protection ensured.

DATA SHEET

Single-pole PCB Mount SPD Socket for PV System

PCB Socket T1 PV(-R)

Class I • Class II • Type 1 • Type 2 • Type 1CA



Location of Use: String box, Inverter
 Mode of Protection: (+)-PE, (-)-PE, (+)-(-)
 IEC/EN/UL Category: Class I+II, Type 1+2 / Type 1CA
 Housing: PCB Mount
 Compliance: IEC 61643-31:2018
 EN 61643-31:2019
 UL 1449 5th Edition

Technical Data**PCB Socket T1 PV(-R)****EN Electrical**

Maximum Continuous Operating Voltage (PV)	U_{OPV}	up to 750V
Nominal Discharge Current (8/20 μ s)	I_n	up to 20 kA
Impulse Discharge Current (10/350 μ s)	I_{imp}	up to 6.25 kA
Specific Energy	W/R	up to 9.77 kJ/ Ω
Charge	Q	up to 3.125 As
Maximum Discharge Current (8/20 μ s)	I_{max}	up to 40 kA
Total Discharge Current (10/350 μ s)	I_{Total}	up to 12.5 kA
Short-Circuit Current Rating	I_{SCPV}	up to 30 kA
Number of Ports		1

UL Electrical

Maximum Permitted DC Voltage	V_{pdc}	up to 750V
Nominal Discharge Current (8/20 μ s)	I_n	up to 20 kA
Short-Circuit Current Rating	SCCR	up to 65 kA

Mechanical & Environmental

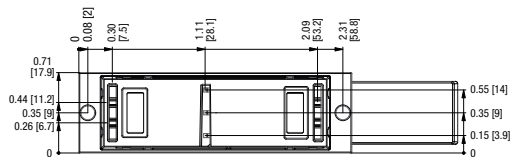
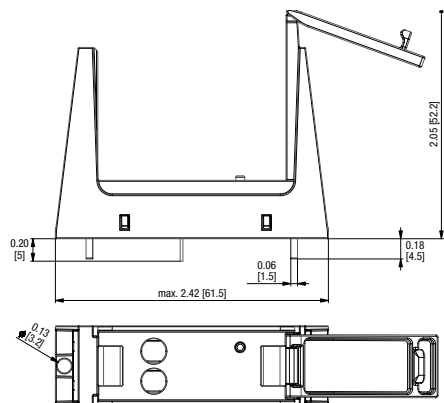
Operating Temperature Range	T_a	-40 °F to +185 °F [-40 °C to +85 °C]
Permissible Operating Humidity	RH	5%...95%
Altitude (max)		13123 ft [4000m]
Mounting		Printed Circuit Board (PCB)
Degree Of Protection		IP 20 (built-in PCB, with protection module plugged in)
Housing Material		Thermoplastic: Extinguishing Degree UL 94 V-0
Remote Contacts (RC)		Optional
RC Switching Capacity		AC: 250V/1A, 125V/1A; DC: 48V/0.5A, 24V/0.5A, 12V/0.5A

*Product with T2 sized locking clip.

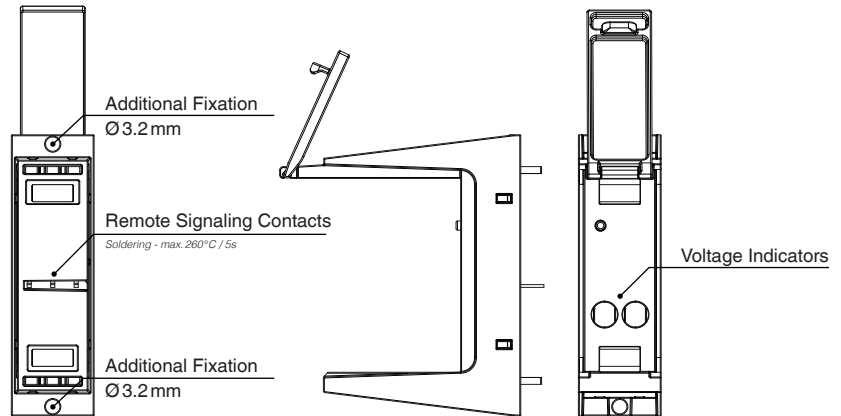
For complete line of Raycap product solutions or dedicated case applications please contact us: info@raycap.com.

Installation Configuration

Complete Unit



PCB Socket T1 PV(-R)



Single Unit Dimensions & Packaging

PCB Socket T1 PV

Weight	pounds	.046
	grams	21 g

PCB Socket T1 PV-R

Weight	pounds	.048
	grams	22 g

DIN 43880 Dimension	1 TE / .71" [18]
Packaging Dimensions (H x W x L)	14.8 x 2.5 x 2.6" [377 x 64 x 67 mm]
Standard Order Quantity	20 Units

inches
[mm]

Information contained in this document is subject to
change at any time without notice.



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