2 Amp Solid State Relay — PCS4

c UL us E93379

FEATURES

- DC Input/AC Output for 2A Current Load at 25°C
- Printed Circuit Board Mount
- Built in Snubber
- DC Input: 5 V, 12 V or 24 V
- 2000 VAC Opto-Isolation Between Input and Output
- Encapsulated, Thermally Conductive Epoxy
- RoHS Compliant

INPUT PARAMETERS (Ta = 25°C)

Control Voltage Range	5	4 - 6 VDC
	12	9.6 - 14.4 VDC
	24	19.2 - 28.8 VDC
Must Operate Voltage	5	4 VDC
	12	9.6 VDC
	24	19.2 VDC
Must Release Voltage	1.0 VDC	
Maximum Input Current	25 mA	
Input Resistance	5	270 Ω
	12	750 Ω
	24	1.64 kΩ

OUTPUT PARAMETERS (Ta = 25°C)

Load Voltage Range		48 VAC to 280 VAC
Load Current Range		0.1 A to 2 A
Max. Surge Current (10ms)		25 Apk
Max. Leakage Current		1.5 mA
Max. On-State Voltage Drop		1.5 Vrms
Max. Turn-On Time	Zero Cross	1/2 Cycle + 1 ms
	Random	1 ms
Max. Turn-Off Time		1/2 Cycle + 1 ms
Max. Transient Overvoltage		600 Vpk
Off-State dv/dt		100 V/us
Max Zero-Cross Overvoltage		± 15 V
Min. Power Factor		0.5
Max. I^2 for Fusing (10 ms)		3.1 A^2 s

CHARACTERISTICS

Dielectric Strength (Input to Output)	2000 VAC, 50 Hz/60 Hz, 1 min
Insulation Resistance	1000 MΩ at 500 VDC
Max. Capacitance (Input to Output)	5 pf
Vibration Resistance	10 Hz to 55 Hz 1.5 mm DA
Shock Resistance	980 m/s^2

Operating Temperture	- 30°C to 80°C
Storage Temperature	- 30°C to 100°C
Ambient Humidity	Up to 85% RH
Weight	6 g

ORDERING INFORMATION

Example:	PCS4	-12D	-240A	-2	Z	T

Model: **PCS4**
Control Voltage: **5D**: 5 VDC, **12D**: 12 VDC, **24D**: 24 VDC
Load Voltage: **240A**: 240VAC
Load Current: **1**: 1 Amp, **2**: 2 Amp
Switching Type: **Z**: Zero Crossing, **R**: Random Turn-On
Termination: **T**: T Type (231mm) **M**: M Type (341mm) K: K Type (241mm)

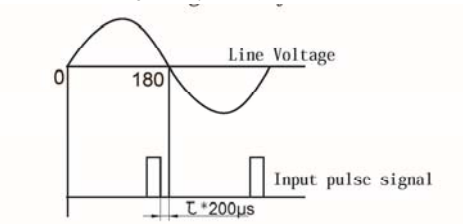
Box Quantity: 1000; Inner Box: 100

PICKER COMPONENTS
3220 Commander Drive, Suite 102 Carrollton, TX 75006
Sales: (972) 713-6272 (888) 997-3933 Fax: (972)735-0964
www.PickerComponents.com
e-mail: sales@pickercomponents.com

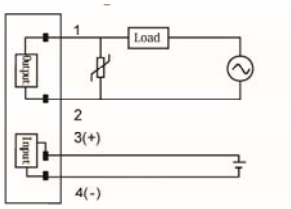
Dimensions are listed for reference purposes only.
Specifications and Availability subject to change without notice.

PRECAUTIONS

1. Soldering must be completed within 10s at 260* or less or within 5s at 350* or less.
2. The SSR case serves to dissipate heat. Install the relays so that they are adequately ventilated. If poor ventilation is unavoidable, the load current must be reduced. Please refer to the curve of "Max. Load current Vs. Ambient Temperature".
3. The input circuitry does not incorporate a circuit protecting the SSR from being damaged due to a reversed connection. Make sure that the polarity and the input and output are correct when connecting.
4. If the output transient voltage exceeds the nominal value a varistor should be mounted on the SSR output terminal in parallel to prevent the relay being breakdown. The recommended varistor voltage 470V.
5. When using the relay in phase control applications, at a phase control angle close to 180 degrees the relay's input signal turn off at the trailing edge of the AC sine wave must be limited to end 200*s before AC zero cross. This assures that the relay has time to switch off. Shorter times may cause loss of control at the following half cycle.



6. Please do not use the relay beyond the descriptions in the Data Sheet.

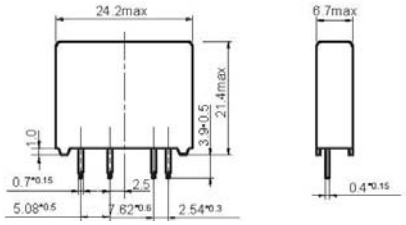


7. Terminal Arrangement

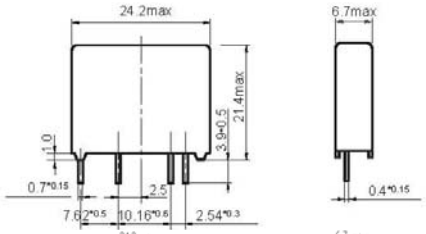
DIMENSIONS (mm/inches)

Outline Dimensions

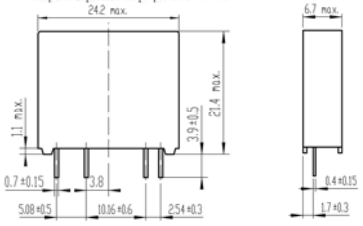
T Type



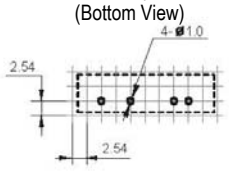
M Type

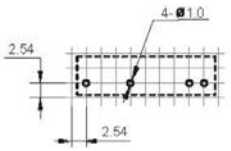


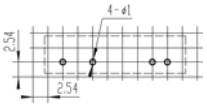
K Type



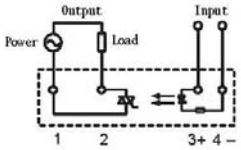
PCB Layout
(Bottom View)





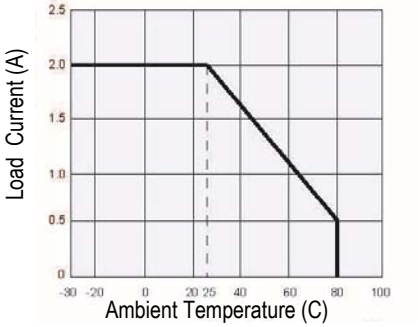


Wiring Diagram

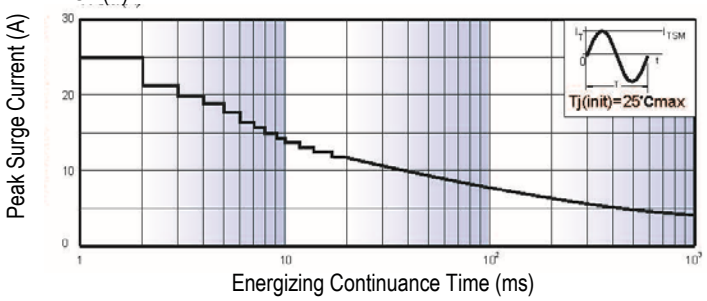


CHARACTERISTIC CURVES

Max. Load Current vs. Ambient Temperature



Max. Permissible Non-repetitive Peak Surge Current vs. Continuance Time
ITSM(A)



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