Solid State Relay PCS33

FEATURES

- Load Current: 7 to 100 A, MOSFET Output
- Load Output Range: 0—500 VDC
- DC Input: 3-32 VDC
- Panel Mount
- Dielectric Strength of 2,500 VAC
- RoHS Compliant

OUTPUT PARAMETERS (Ta = 25°C)

Load Voltage Option	D30		D50		D100			D150	D200		D400	D500	
Load Current Option	50	100	40	80	20	40	80	50	10	40	10	7	12
Load Voltage Range	0 - 30 VDC		0 - 50 VDC		0 - 100 VDC			0 - 150 VDC	0 - 200 VDC		0 - 400 VDC	0 - 500 VDC	
Max. Load Current Min. Load Current 0.02 A	50 A	100 A	40 A	80 A	20 A	40 A	80 A	50 A	10 A	40 A	10 A	7 A	12 A
Max. Off-State Leakage Current	0.1 mA		0.1 mA		0.1 mA			0.1 mA	0.1 mA		0.1 mA	0.1 mA	
Max. On-State Voltage Drop	0.35 V	0.35 V	0.64 V	0.64 V	1.5 V	1.5 V	1.6 V	0.6 V	1 V	1 V	2.4 V	1.9 V	1.5 V
Max. On-State Resistance	7 mΩ	3.5 mΩ	16 mΩ	8 mΩ	75 mΩ	37.5 mΩ	20 mΩ	12 mΩ	105 mΩ	35 mΩ	0.24 mΩ	0.26 mΩ	0.125 mΩ
Max. Turn-On Time	1 ms												
Max. Turn-Off Time	0.5 ms												
Max. Surge Current (10 ms)	120 Apk	240 Apk	100 Apk	200 Apk	80 Apk	160 Apk	240 Apk	200 Apk	40 Apk	130 Apk	40 Apk	30 Apk	40 Apk

INPUT PARAMETERS (Ta = 25°C)

Control Voltage Range	3 - 32 VDC Without Led
	4 - 32 VDC With LED
Must Operate Voltage	3 VDC Without LED
	4 VDC With LED
Must Relaeas Voltage	1.0 VDC
Max. Input Current	28 mA at 32 VDC
Must Reverse Voltage	-32 VDC

CHARACTERISTICS

Dielectric Strength	2500 VAC, 50 Hz/60 Hz, 1 min. (Input, Output to Output)
Insulation Resistance	1000 MΩ at 500 VDC
Vibration Resistance	10 Hz - 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
Weight	Approximately 100 g

ORDERING INFORMATION

Example: PCS33 -D 100 -10 L

Model: PCS33

Control Voltage: D: 3 - 32 VDC Without LED,
4 - 32 VDC With LED

Load Voltage: 30: 30 VDC; 50: 50 VDC; 100: 100 VDC;
150: 150 VDC; 200: 200 VDC; 400: 400 VDC; 500; 500 VDC

Load Current: 7: 7 A; 10: 10 A; 12: 12 A; 20: 20 A
40: 40 A; 50: 50 A: 80: 80 A; 100: 100 A

Status LED: Nil: Not Included; L: Indicator LED

Box Quantity: 100; Inner Box 2

OPTIONS (Load Current - A / Load Voltage - V)

A/V	30	50	100	150	200	400	500
7						X	X
10					X	X	
12							X
20			X				
40		X	X		X		
50	X			X			
80		X					X
100	X						

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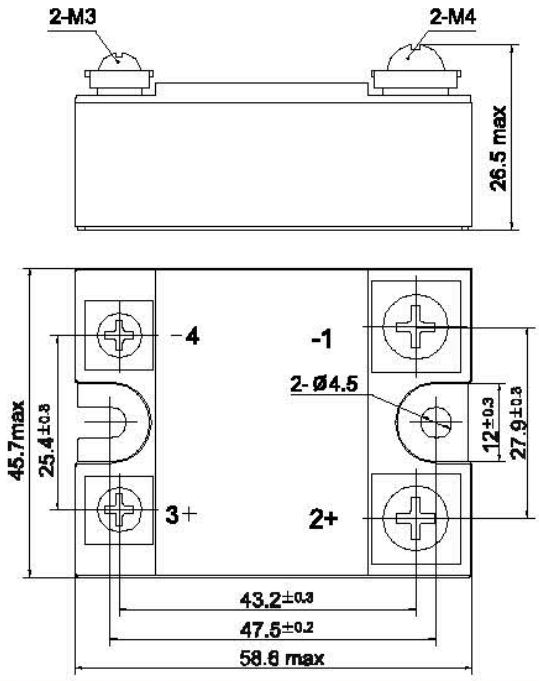
Dimensions are listed for reference purposes only.

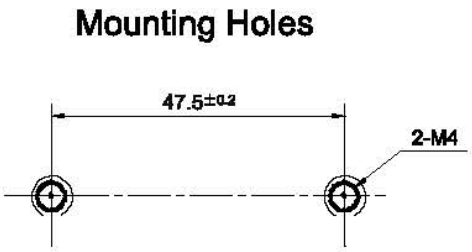
Specifications and Availability subject to change without notice.

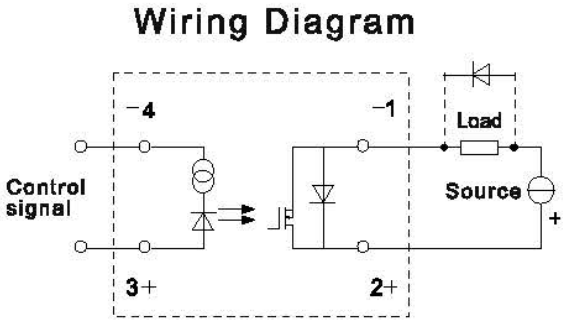
PRECAUTIONS

1. A diode is required for Inductive Loads.
2. When choosing a SSR, note the actual load current and ambient temperature and reference the Characteristic Curves below.
3. SSR require a adequate heat sinking or other effective cooling measures.
4. With ambient temperature above 25^0C refer to the curve of Max. Load Current vs Ambient Temperature for load current derating.
5. Apply heat-conducting silicon grease or a thermal transfer pad on the space between SSR and heat sink and screw the SCR firmly in to the heat sink to avoid damage from overheating.
6. Tighten the SSR terminal screws properly. We recommended screw installation torque as follows:
   M4 screw mounting torque range is (0.98-1.37)N • m,
   M3 screw mounting torque range is (0.56-0.98)N • m.
7. Lose screws will damage the SSR with heat generated from connections. Also, excessive screw torque may damage relays internal components.
8. It's recommended to use a heat sink matched to the Current Load. With any heat sink test that the SSR base temperature does not exceed 65"C.
9. Listed parameters are based on resistive loads. Do not use the relay beyond the described current, temperature, load or voltage limits as described in this data sheet.

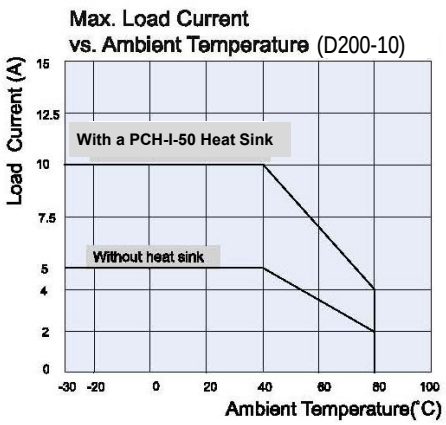
DIMENSIONS (mm)

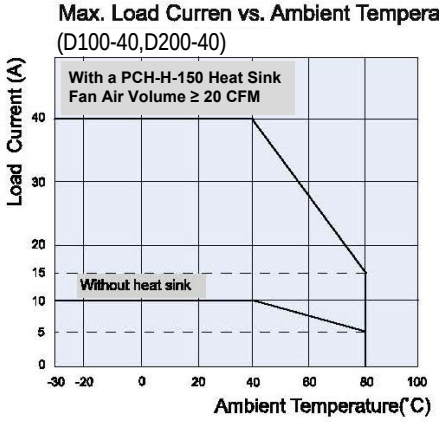


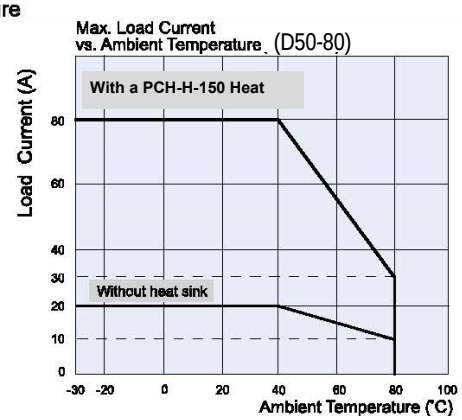




CHARACTERISTIC CURVES







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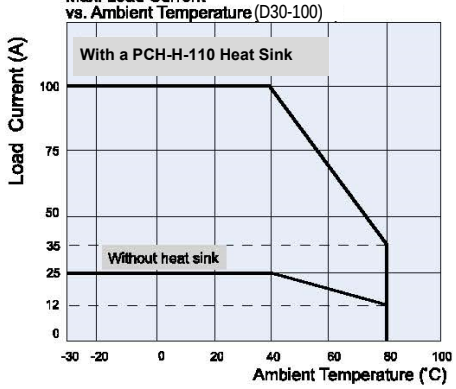
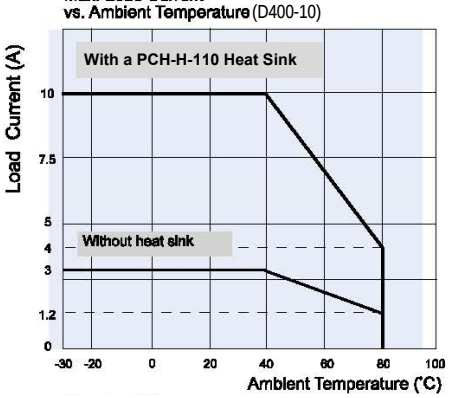
CHARACTERISTIC CURVES

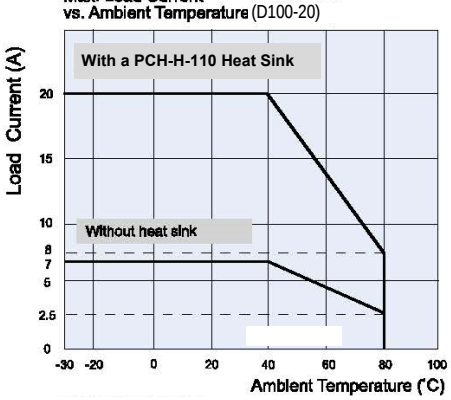
Max. Load Current vs. Ambient Temperature (D30-100)



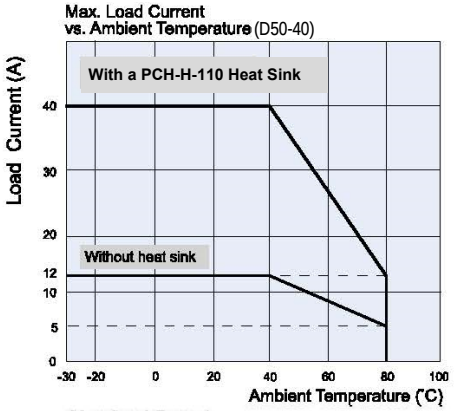
Max. Load Current vs. Ambient Temperature (D400-10)



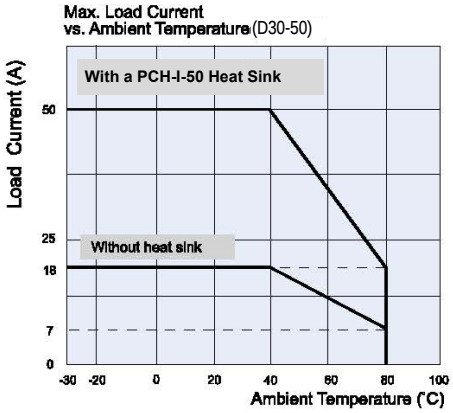
Max. Load Current vs. Ambient Temperature (D100-20)



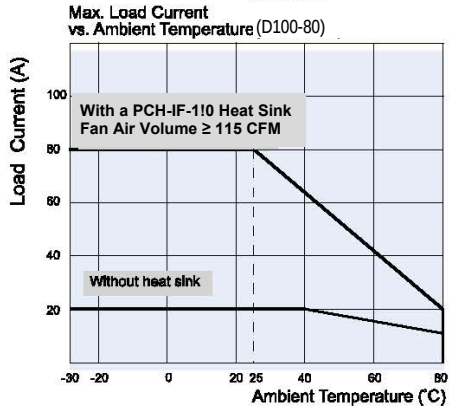
Max. Load Current vs. Ambient Temperature (D50-40)



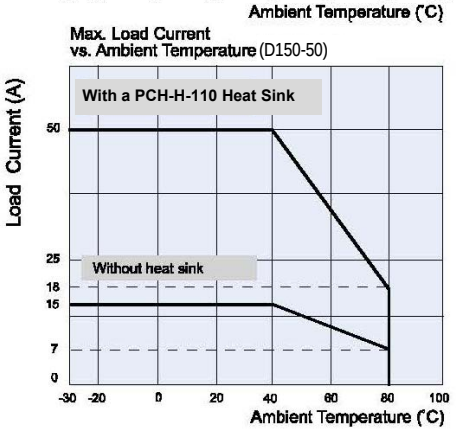
Max. Load Current vs. Ambient Temperature (D30-50)



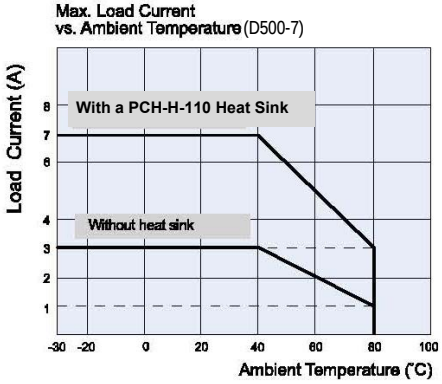
Max. Load Current vs. Ambient Temperature (D100-80)



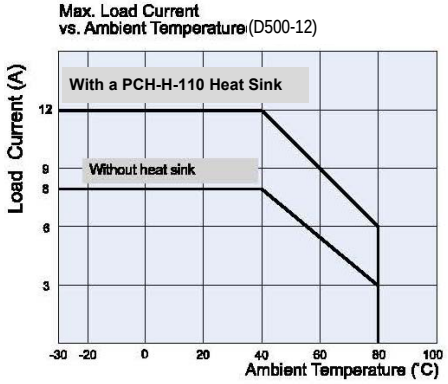
Max. Load Current vs. Ambient Temperature (D150-50)



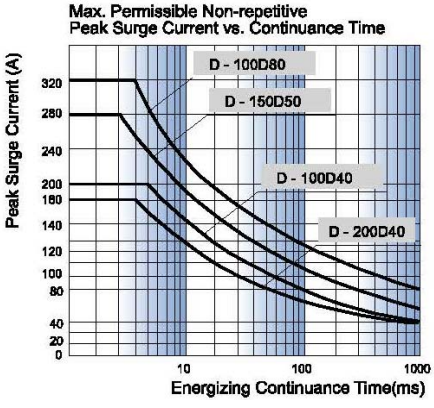
Max. Load Current vs. Ambient Temperature (D500-7)



Max. Load Current vs. Ambient Temperature (D500-12)



Max. Permissible Non-repetitive Peak Surge Current vs. Continuance Time



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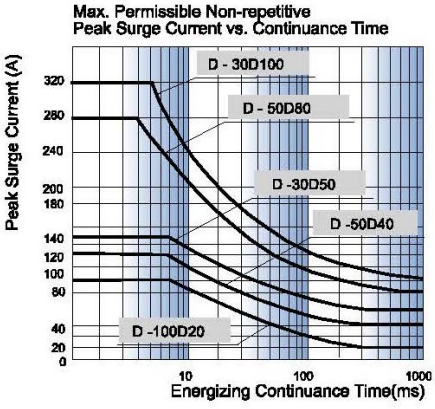

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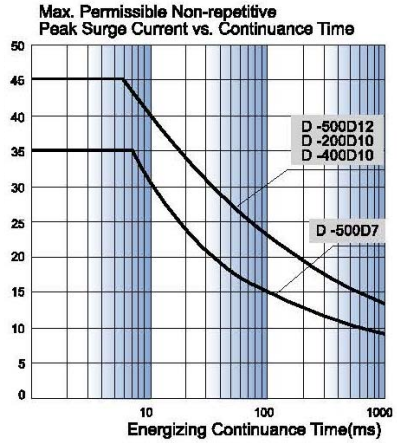

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