

PSD SERIES | 240 VAC

PANEL MOUNT SOLID STATE RELAYS



Features

- Peak-fire SSR for high inductance applications
- Ratings from 25 A to 50 A @ 90-280 VAC
- SCR output for heavy industrial loads
- DC control

PRODUCT SELECTION

Control Voltage	25 A	50 A
3-32 VDC	PSD2425	PSD2450

SPECIFICATIONS

Output⁽¹⁾

Description	25 A	50 A
Operating Voltage (47-63Hz) [Vrms]	90-280	90-280
Transient Overvoltage [Vpk]	600	600
Maximum Off-State Leakage Current @ Rated Voltage [mA _{rs}]	10	10
Minimum Off-State dv/dt @ Maximum Rated Voltage [V/μsec] ⁽²⁾	500	500
Maximum Load Current [A _{rs}] ⁽³⁾	25	50
Minimum Load Current [A _{rs}]	40	40
Maximum 1 Cycle Surge Current (50/60Hz) [A _{pk}]	239/250	597/625
Maximum On-State Voltage Drop @ Rated Current [Vpk]	1.6	1.6
Thermal Resistance Junction to Case (R _{jc}) [°C/W]	1.02	0.63
Maximum 1/2 cycle I ² t for Fusing (50/60Hz) [A ² sec]	285/259	1779/1621
Minimum Power Factor (with Maximum Load)	0.5	0.5

Input⁽¹⁾

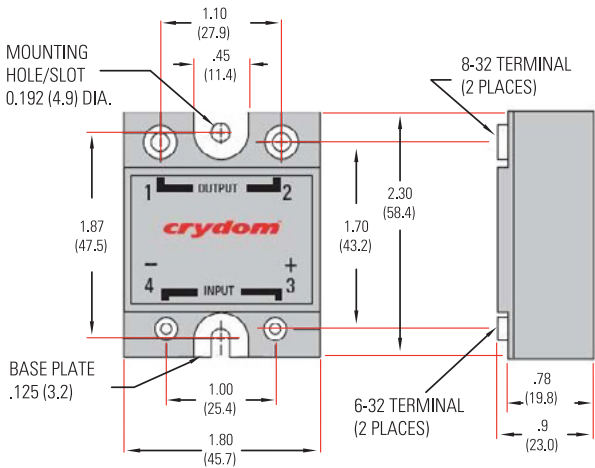
Description	DC Control
Control Voltage Range	3-32 VDC
Maximum Turn-On Voltage	3.0 VDC
Minimum Turn-Off Voltage	1.0 VDC
Maximum Reverse Voltage	-32
Typical Input Current	2 mA ⁴
Nominal Input Impedance	See Note 4
Maximum Turn-On Time [msec]	1/2 Cycle
Maximum Turn-Off Time [msec]	1/2 Cycle

General

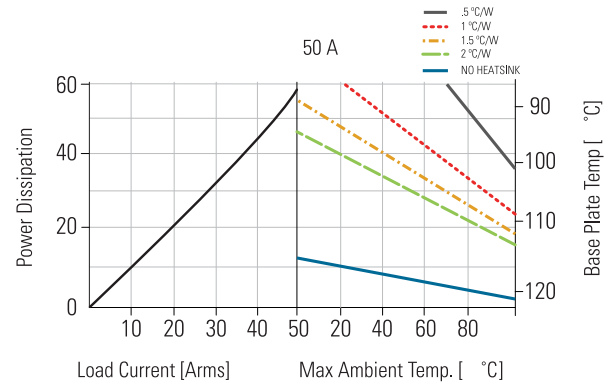
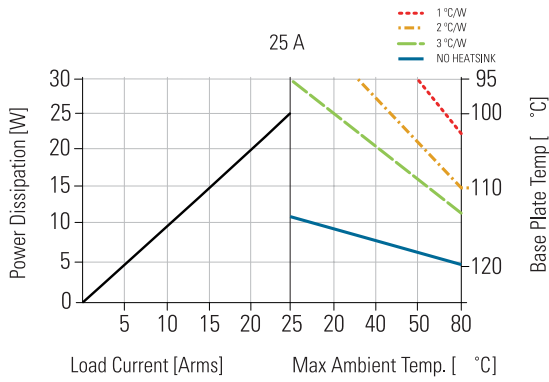
Description	Parameters
Dielectric Strength, Input/Output (50/60Hz) ³	4000 Vrms
Minimum Insulation Resistance (@ 500 VDC)	10 ⁹ Ohms
Maximum Capacitance, Input/Output	8 pF
Ambient Operating Temperature Range	-40 to 80 °C
Ambient Storage Temperature Range	-40 to 125 °C
Weight (typical)	3.0 oz (86.5 g)
Encapsulation	Thermally Conductive Epoxy
Terminals	Screw and saddle Clamps Furnished, Unmounted
Recommended Terminal Screw Torque Range:	6-32 Screws - 10 lb-in. 8-32 & 10-32 Screws - 20 lb-in

MECHANICAL SPECIFICATIONS

*Tolerances: ±0.02 in / 0.5 mm All dimensions are in: inches [millimeters]



THERMAL DERATE INFORMATION



AVAILABLE OPTIONS

Example : PSD2425G

Series	PS	D	24	25	G
PS					
Control Voltage					
D: DC (3-32 V)					
Operating Voltage					
24: 90-280 VAC					
Load Current					
25: 25 Amps 50: 50 Amps					
Status indicator					
Blank: Not Input Status LED G: Input Status LED					

Required for valid part number
For options only and not required for valid part number

NOTE: Not all combinations are available.
Consult factory for information on the availability of a specific part number.

GENERAL NOTES

- (1) All parameters at $T_c=25^{\circ}\text{C}$ unless otherwise specified.
- (2) Off-State dv/dt test method per EIA/NARM standard RS-443, paragraph 13.11.1
- (3) Heat sinking required, for derating curves see page 3.
- (4) Input circuit incorporates active current limiter

AGENCY APPROVALS & CERTIFICATIONS



WARNINGS



RISK OF MATERIAL DAMAGE AND HOT ENCLOSURE

- The product's side panels may be hot, allow the product to cool before touching
- Follow proper mounting instructions including torque values
- Do not allow liquids or foreign objects to enter this product

Failure to follow these instructions can result in serious injury, or equipment damage.



HAZARD OF ELECTRIC SHOCK, EXPLOSION OR ARC FLASH

- Disconnect all power before installing or working with this equipment
- Verify all connections and replace all covers before turning on power

Failure to follow these instructions will result in death or serious injury.

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