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Solid State Relays - Panel Mount: D06D



Features

MOSFET output • 60-100 Amp • 0-60 VDC • DC switching • DC control • Ideal for high current applications.

| Product | INPUT SPECIFICATIONS | OUTPUT SPECIFICATIONS | | | |
|----------------|-----------------------|-----------------------|------------------------|---------|--------------------|
| | Control Voltage Range | Load Current | Switching Voltage Type | Turn On | Load Voltage Range |
| D06D100 | 3.5-32 Volts DC | 0.005-100 Amps DC | DC | N/A | 0-60 Volts DC |
| D06D60 | 3.5-32 Volts DC | 0.005-60 Amps DC | DC | N/A | 0-60 Volts DC |
| D06D80 | 3.5-32 Volts DC | 0.005-80 Amps DC | DC | N/A | 0-60 Volts DC |

- MOSFET Output
- Low On-State Resistance
- High Current Ratings
- Panel Mount

DC output relays feature MOSFET technology for low on-state resistance, assuring easy paralleling and switching capabilities to 100 amps at 60 Vdc. Lower current models are also available to 500 Vdc. All models come in Crydom's standard panel-mount package.

Manufactured in Crydom's ISO 9001 Certified facility for optimum product performance and reliability.

OUTPUT SPECIFICATIONS ^①

| MODEL NUMBERS | D06D60 | D06D80 | D06D100 |
|----------------------------------------------------------------------|--------|--------|---------|
| Operating Voltage Range [Vdc] | 0-60 | 0-60 | 0-60 |
| Max. Load Current ^③ [A dc] | 60 | 80 | 100 |
| Min. Load Current [mA] | 5 | 5 | 5 |
| Max. Surge Current, [A dc] (10msec) | 180 | 220 | 270 |
| Max. On-State Voltage Drop @ Rated Current [Vdc] | 0.6 | 0.7 | 0.5 |
| Thermal Resistance Junction to Case (R _{qJC}) [C/W] | 0.6 | 0.47 | 0.32 |
| Max On-state Resistance @ Rated Current (R _{DS-ON}) [Ohms] | .010 | .008 | .005 |
| Max. Off-State Leakage Current @ Rated Voltage [mA] | 0.1 | 0.2 | 0.3 |
| Max. Turn-On Time [µsec] | 300 | 300 | 300 |
| Max. Turn-Off Time [msec] | 1.0 | 1.0 | 1.0 |

INPUT SPECIFICATIONS ^①

DC CONTROL

| | |
|--------------------------|---------------------------------------------|
| Control Voltage Range | 3.5-32 Vdc |
| Maximum Turn-On Voltage | 3.5 Vdc |
| Minimum Turn-Off Voltage | 1.0 Vdc |
| Nominal Input Impedance | See Note 4 |
| Maximum Input Current | 1.6 mA (5 Vdc), 28 mA (32 Vdc) ^④ |

GENERAL NOTES

- ① All parameters at 25° C unless otherwise specified.
- ② Dielectric strength and insulation resistance are measured between input and output.
- ③ Heat sinking required, for derating curves see page 2.
- ④ Input circuitry incorporates active current limiter.

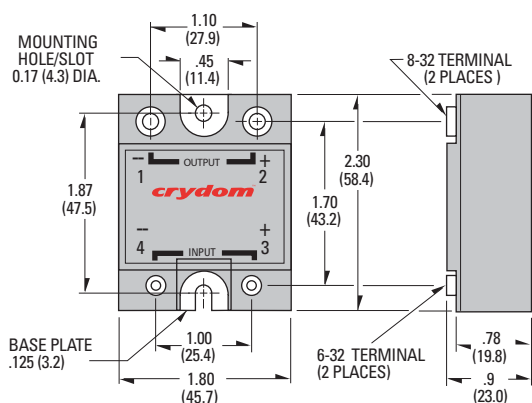
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GENERAL SPECIFICATIONS

| | |
|----------------------------------------|---------------------|
| Dielectric Strength 60Hz | 2500 Vrms |
| Insulation Resistance (Min.) @ 500 Vdc | 10 ⁹ Ohm |
| Max. Capacitance Input/Output | 50 pF |
| Ambient Operating Temperature Range | -30 to 80°C |
| Ambient Storage Temperature Range | -40 to 125°C |

MECHANICAL SPECIFICATIONS

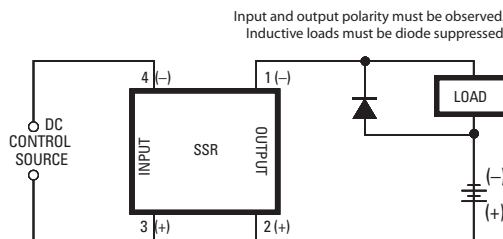
| | |
|-------------------|-----------------------------------------------|
| Weight: (typical) | 3.0 oz. (86.5g) |
| Encapsulation: | Thermally Conductive Epoxy |
| Terminals: | Screws and Saddle Clamps Furnished, Unmounted |



All dimensions are in inches (millimeters)

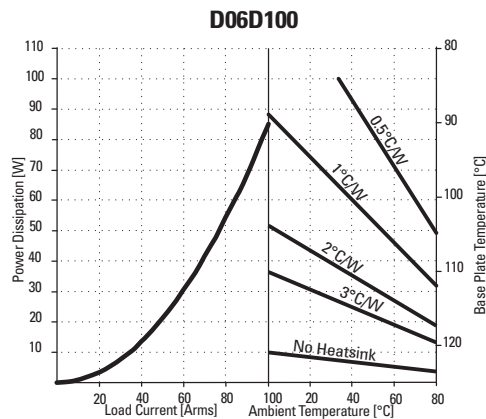
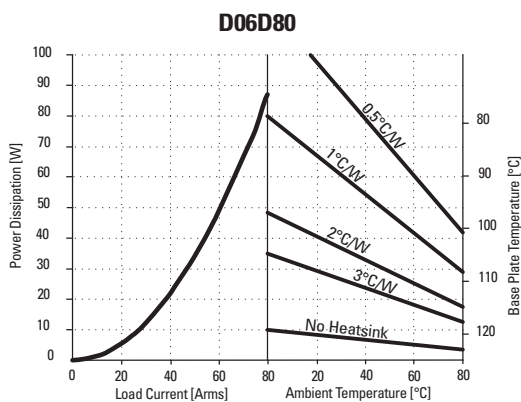
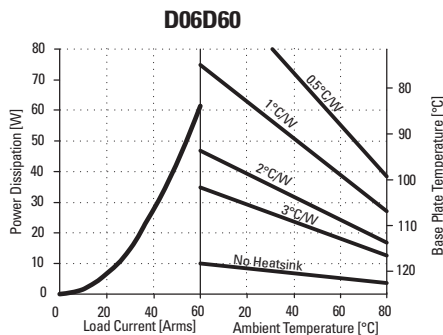
Screw Torque Requirements:

- 6-32 Screws - 10 in./lbs. (1.1 Nm),
 - 8-32 and 10-32 Screws - 20in./lbs. (2.2 Nm)
- (Screws dry without grease.)



Transient Protection

All loads are inductive, even ones that are not so labeled. An inductive load will produce harmful transient voltages when it is turned off. The more perfect the switch, the larger the transient voltages; the MOSFET output is so nearly an ideal switch that the transient voltages produced by seemingly "non-inductive" loads can cause damage if not suppressed. Diodes should be fast recovery type with PIV rated greater than supply voltage.



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