

## Series 1-DC



- D1D to D5D series SSRs; MOSFET output
- Ratings from 7A to 40A @ 200 VDC, and from 7A to 10A @ 500 VDC
- DC Control
- Relays are easily paralleled for higher-current applications
- CE Compliant to EN60950-1

### PRODUCT SELECTION

Load Voltage	7A	10A	12A	20A	40A
100 VDC	D1D07		D1D12	D1D20	D1D40
200 VDC	D2D07		D2D12		D2D40
400 VDC	D4D07		D4D12		
500 VDC	D5D07	D5D10			

### OUTPUT SPECIFICATIONS (1)

Description	7A	12A	20A	40A	7A	12A	40A	7A	12A	7A	10A
Operating Voltage Range	0-100	0-100	0-100	0-100	0-200	0-200	0-200	0-400	0-400	0-500	0-500
Maximum Off-State Leakage Current @ Rated Voltage [mA]	0.1	0.2	0.3	0.3	0.1	0.3	0.3	0.3	0.3	0.2	0.3
Maximum Load Current (3) [Adc]	7	12	20	40	7	12	40	7	12	7	10
Minimum Load Current [mA]	1	1	1	1	1	1	1	1	1	1	1
Maximum Surge Current [Adc] (10ms)	15	28	42	106	22	27	106	17	36	19	29
Maximum On-State Voltage Drop @ Rated Current [Vdc]	2.0	1.6	2.1	2.1	2.0	2.8	2.1	4.2	4.2	5.7	5.5
Thermal Resistance Junction to Case (Rjc) [°C/W]	2.2	1.34	1.06	0.83	1.5	1.06	0.83	1.06	0.8	1.0	0.8
Maximum On-State Resistance [RDS-ON][Ohms]	0.29	0.13	0.10	0.05	0.29	0.23	0.05	0.6	0.35	0.8	0.55

### INPUT SPECIFICATIONS (1)

Description	DC Control
Control Voltage Range	3.5-32 VDC
Minimum Turn-On Voltage	3.5 VDC
Minimum Turn-Off Voltage	1.0 VDC
Minimum Input Current @ 5VDC	1.6 mA
Maximum Input Current @ 32VDC	28 mA
Nominal Input Impedance	See Note 4
Maximum Turn-On Time [µsec]	100
Maximum Turn-Off Time [msec]	1.0

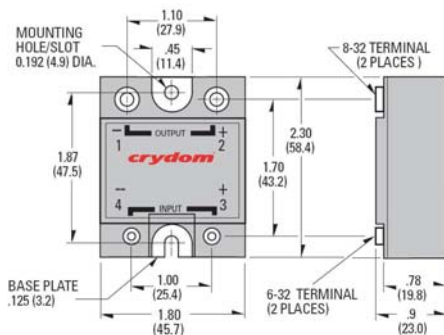
### GENERAL SPECIFICATIONS

Description	Parameters
Dielectric Strength, Input/Output/Base (50/60Hz)	2500 VRMS
Minimum Insulation Resistance (@ 500 V DC)	10 <sup>9</sup> Ohm
Maximum Capacitance, Input/Output	50 pF
Ambient Operating Temperature Range	-20 to 80°C
Ambient Storage Temperature Range	-20 to 125 °C
Weight (typical)	3.0 oz (86.5g)
Encapsulation	Thermally conductive Epoxy
Terminals	Screws and Saddle Clamps Furnished, Unmounted
Recommended Terminal Screw Torque Range:	6-32 Screws - 10 in lbs. 8-32 and 10-32 Screws -20 in. lbs. (Screws dry without grease)

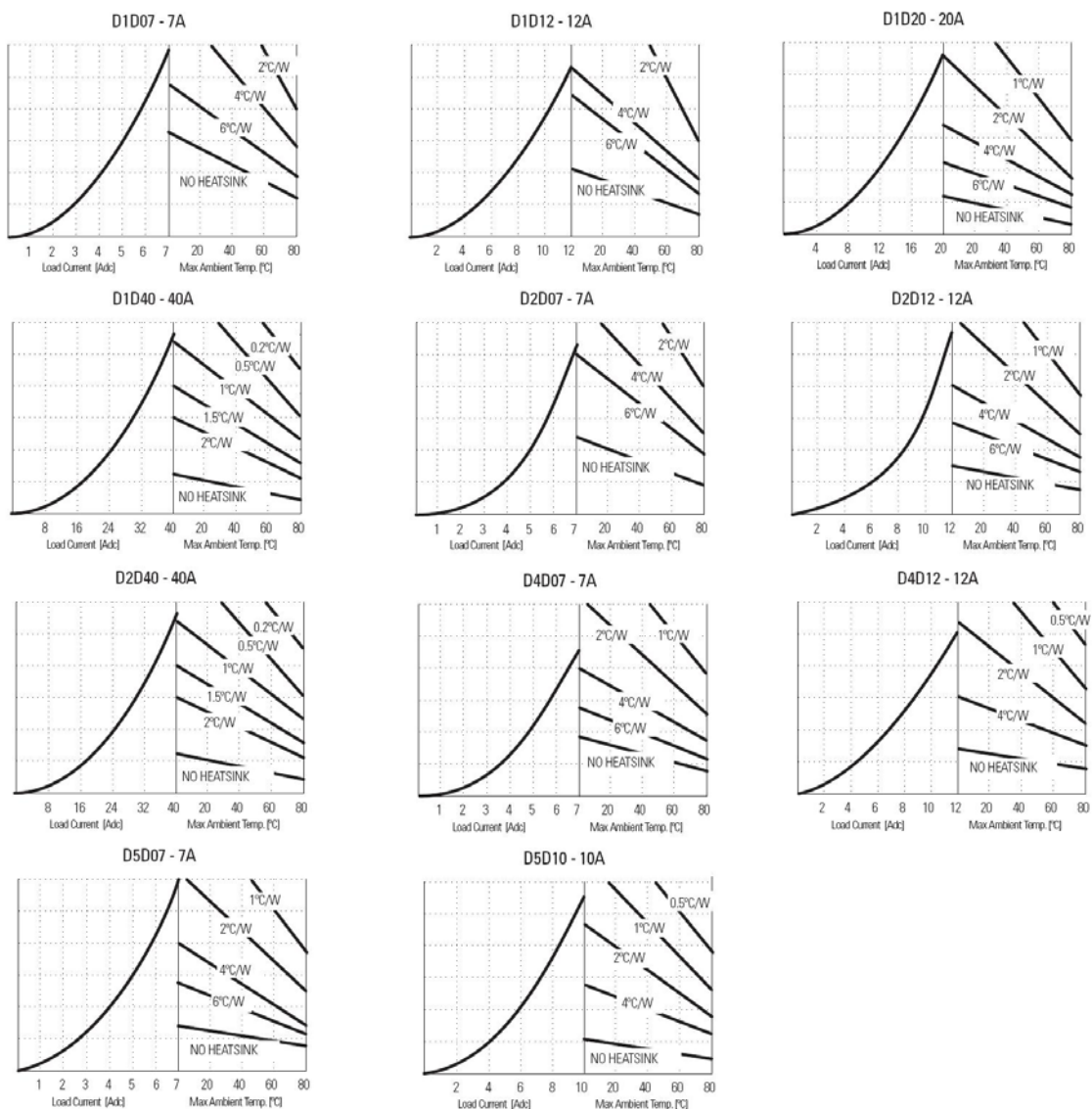
### GENERAL NOTES

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

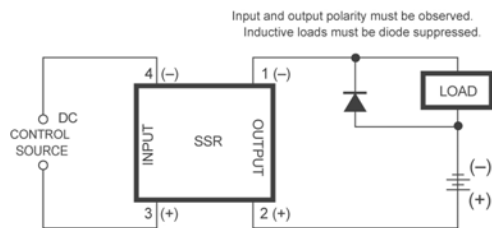
## MECHANICAL SPECIFICATIONS



## THERMAL DERATE INFORMATION

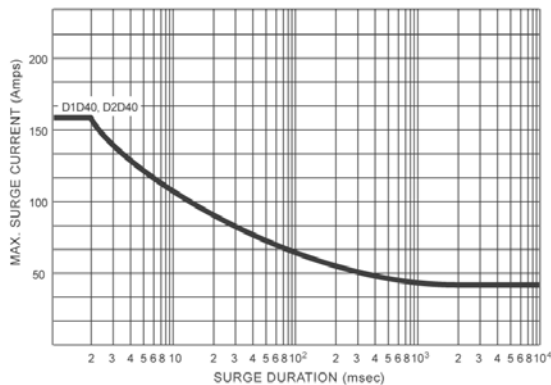
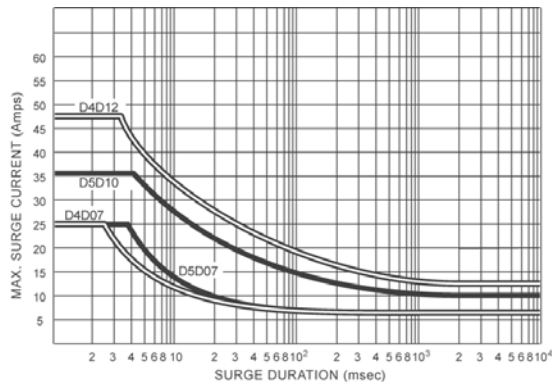
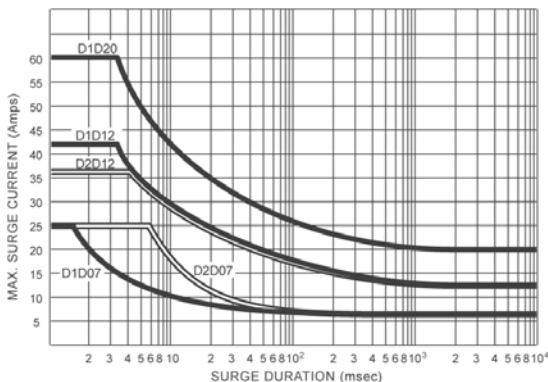


## WIRING DIAGRAM



Transient Protection

## MAXIMUM SURGE VS DURATION



## AGENCY APPROVALS

EN60950 : Meets the requirements of sections 1.5: 1.7: 2.9: 2.10.5.3: 4.2: 4.5: 4.7:  
 UL E116950 (100 Volt Models 1-DC Only)

