

- High Packaging Density
- Compatible with 5, 15 & 24 Volt Logic Systems
- Opto-Isolated 4000 Vrms
- Zero Voltage Switching (AC)

Available in 3Arms and 4Arms ratings, all are SPST-NO PC-mount relays that provide greater packaging density and compatibility with pin out of Series 6 and OAC output modules. Internal snubber included for high dv/dt applications (AC). Manufactured in Crydom's ISO 9001 Certified facility for optimum product performance and reliability.

| MODEL NUMBER  | MP120D3   | MP240D3   | MP240D4   |
|---|-----------|-----------|-----------|
| <b>AC OUTPUT SPECIFICATIONS ①</b>                                     |           |           |           |
| Operating Voltage Range (47-63 Hz) [Vrms]                             | 12-140    | 24-280    | 24-280    |
| Load Current Range [Arms]   | .02-3     | .02-3     | .02-4     |
| Transient Overvoltage [Vpk]   | 400       | 600       | 600       |
| Max. Surge Current, (16.6ms) [Apk]                                    | 90        | 90        | 130       |
| Max. On-State Voltage Drop @ Rated Current [Vpk]                      | 1.6       | 1.6       | 1.6       |
| Maximum I <sup>2</sup> t for Fusing, (8.3 msec.) [A <sup>2</sup> sec] | 36        | 36        | 72        |
| Max. Off-State Leakage Current @ Rated Voltage [mArms]                | 5.0       | 5.0       | 5.0       |
| Min. Off-State dv/dt @ Max. Rated Voltage [V/μsec] ②                  | 200       | 200       | 200       |
| Max. Turn-On Time   | 1/2 Cycle | 1/2 Cycle | 1/2 Cycle |
| Max. Turn-Off Time  | 1/2 Cycle | 1/2 Cycle | 1/2 Cycle |
| Power Factor (Min.) with Max. Load                                    | 0.5       | 0.5       | 0.5       |

| DC OUTPUT SPECIFICATIONS ①  | MPDCD3 <sup>③</sup> |
|---|---------------------|
| Operating Voltage Range [Vdc]                                     | 3-60                |
| Load Current Range [Adc]  | 0.02-3.0            |
| Max. Over Current (non-repetative) 1sec [A]                       | 5.0                 |
| Max. On-State Voltage Drop @ Rated Current [Vdc]                  | 1.5                 |
| Max. Turn-On time (T <sub>delay</sub> + T <sub>rise</sub> ) [μs]  | 100                 |
| Max. Turn-Off time (T <sub>delay</sub> + T <sub>fall</sub> ) [μs] | 100                 |
| Max. Off-State Leakage Current @ Rated Voltage [mA]               | 1.0                 |

| INPUT SPECIFICATIONS ①            | All Models |
|-----------------------------------|------------|
| Control Voltage Range [Vdc]       | 3-32       |
| Must Turn-On Voltage [Vdc]        | 3.0        |
| Must Turn-Off Voltage [Vdc]       | 1.0        |
| Typical Input Current @ 5Vdc [mA] | 2.6        |
| Nominal Input Impedance [Ohms]    | 1500       |

**GENERAL NOTES**

- ① All parameters at 25°C unless otherwise specified.
- ② Off-State dv/dt test method per EIA/NARM standard RS-343, paragraph 13.11.1
- ③ Inductive loads should be diode suppressed.

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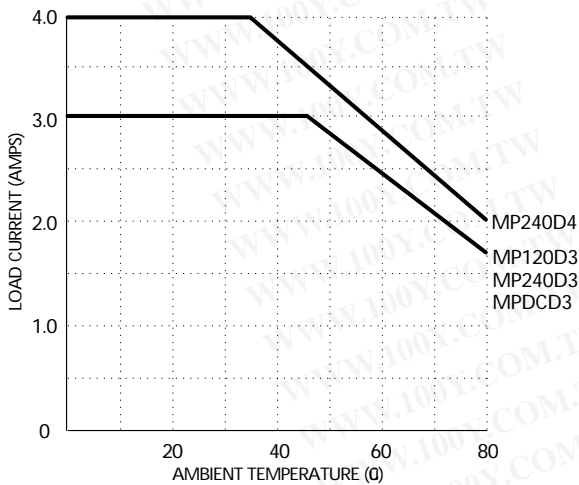
## GENERAL SPECIFICATIONS

|   |                     |
|---|---------------------|
| Dielectric Strength 50/60Hz Input/Output/Base | 4000 Vrms           |
| Insulation Resistance (Min.) @ 500 Vdc        | 10 <sup>9</sup> Ohm |
| Max. Capacitance Input/Output                 | 8 pF                |
| Ambient Operating Temperature Range           | -40 to 80°C         |
| Ambient Storage Temperature Range             | -40 to 125°C        |

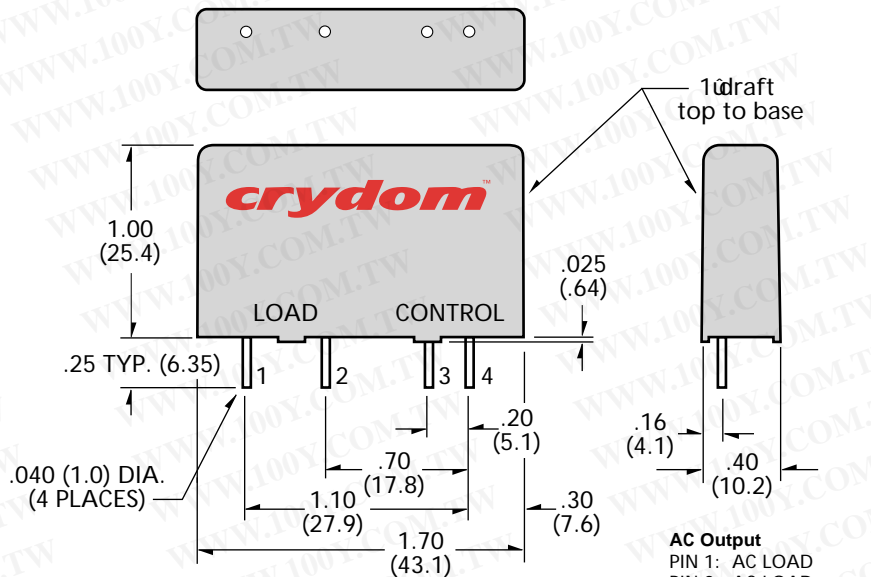
## MECHANICAL SPECIFICATIONS

|                   |                            |
|-------------------|----------------------------|
| Weight: (typical) | 0.7 oz. (20g)              |
| Encapsulation:    | Thermally Conductive Epoxy |

### CURRENT DERATING CURVES



### BOTTOM VIEW



All dimensions are in inches (millimeters)

**AC Output**  
 PIN 1: AC LOAD  
 PIN 2: AC LOAD  
 PIN 3: +DC CONTROL  
 PIN 4: -DC CONTROL

**DC Output**  
 PIN 1: +DC LOAD  
 PIN 2: -DC LOAD  
 PIN 3: +DC CONTROL  
 PIN 4: -DC CONTROL

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### APPROVALS

UL E116950  
 VDE 5900 UG (AC Output Only)  
 CSA LR81689 (AC Output Only)

