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Solid State Relays - PCB Mount: MP



Features

SCR output on AC version and FET output on DC version • 3-4Amp • 120/240 Vrms (AC Switching) • 0-60 VDC N.O or N.C. (DC Switching) • SIP mount • AC version has built-in snubber

Product	INPUT SPECIFICATIONS	OUTPUT SPECIFICATIONS			
	Control Voltage Range	Load Current	Switching Voltage Type	Turn On	Load Voltage Range
MP120D3	3-32 Volts DC	0.02-3 Amps RMS	AC	Zero cross	12-140 Volts RMS
MP240D3	3-32 Volts DC	0.02-3 Amps RMS	AC	Zero cross	24-280 Volts RMS
MP240D4	3-32 Volts DC	0.02-4 Amps RMS	AC	Zero cross	24-280 Volts RMS
MPDCD3	3-32 Volts DC	0.02-3 Amps DC	DC	N/A	3-60 Volts DC
MPDCD3-B	3-32 vdc	0.02-3	DC	N/A	3-60 VDC

- High Packaging Density
- Compatible with 5, 15 & 24 Volt Logic Systems
- Opto-Isolated 4000 Vrms
- Zero Voltage Switching (AC Output)
- Normally Closed (Form B) Available (DC Output)

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
AC OUTPUT SPECIFICATIONS ①			
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 ² t for Fusing, (8.3 msec.) [A ² 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
P o w e r a t r a n s i e n t M a x . o n d u t y	0.5	0.5	0.5

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

INPUT SPECIFICATIONS	AC/DC Output	DC Output (-B)
①		
Control Voltage Range [Vdc]	3-32	3-32
Must Turn-On Voltage [Vdc]	3.0	1.0
Must Turn-Off Voltage [Vdc]	1.0	3.0
Typical Input Current @ 5Vdc [mA]	2.6	2.6
Nominal Input Impedance [Ohms]	1500	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.

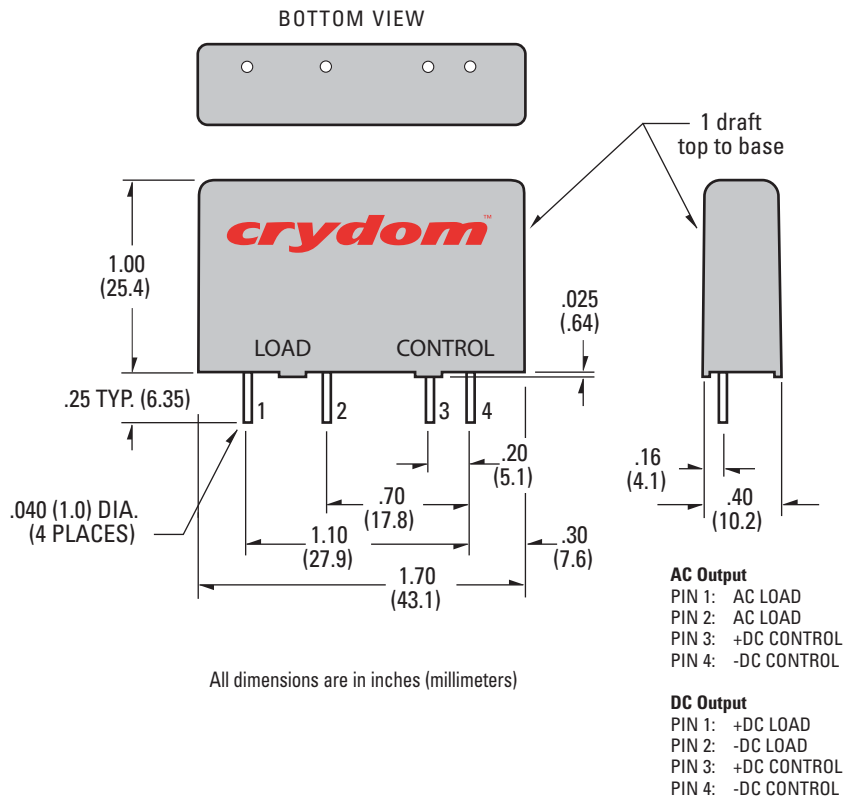
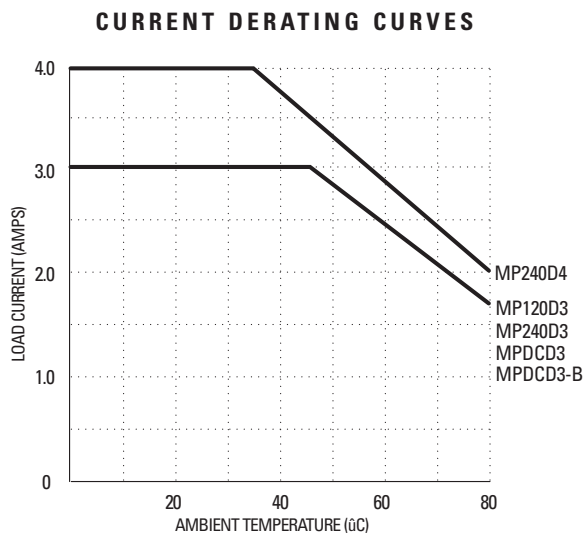
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GENERAL SPECIFICATIONS

Dielectric Strength 50/60Hz Input/Output	4000 Vrms
Insulation Resistance (Min.) @ 500 Vdc	10 ⁹ 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



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APPROVALS

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

