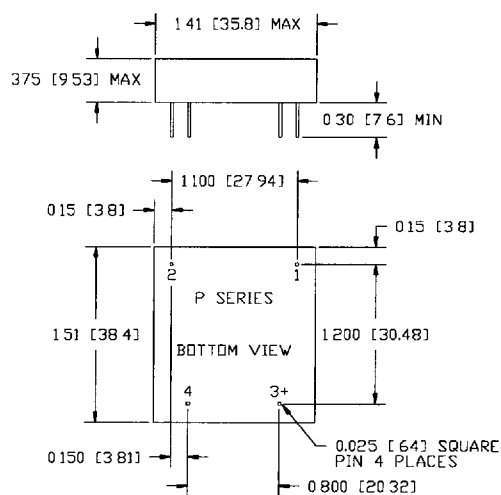
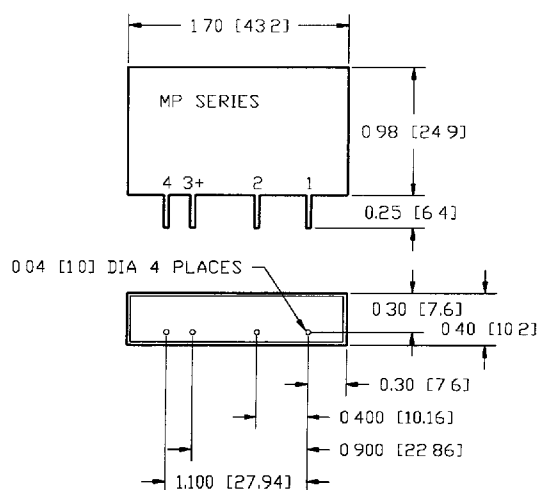
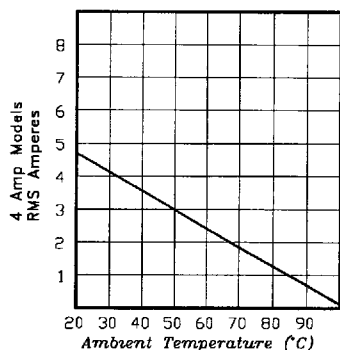
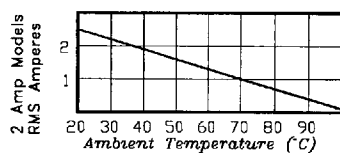
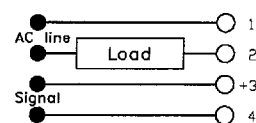


Opto 22's P Series provides a low profile SSR for 1/2 inch center mounting of printed circuit boards, while the MP Series provides a small footprint where PC board area is at a premium. Units are available in 2 and 4 amp versions for both 120 and 240 volt lines. A new 4 amp version is available for 380 volt lines.

- ▲ Photo Isolation
- Zero voltage turn-on
- Built-in snubber
- ▲ High PRV rating
- 200% load tested at rated current at 0.5 power factor
- 4000 volt isolation
- ▲ TTL compatible
- UL recognized
- CSA certified
- ▲ VDE approved

### Connection Diagram

**Note:** Load may be in series with terminal 1 or 2.



**TOLERANCES:** .XX ± 0.03 [0.8]  
.XXX ± 0.010 [0.25]

CURRENT V.S. AMBIENT

PRINTED CIRCUIT SERIES **Detailed Electrical Specifications**

| Model Number          | Nominal AC Line Voltage | Nominal Current Rating Amps | 1 Cycle Surge (Amps) Peak | Nominal Signal Input Resistance Ohms | Signal Pick-up Voltage                                                            | Signal Drop-out Voltage | Peak Repetitive Voltage Minimum | Maximum Output Voltage Drop | Off State Leakage mA Maximum | Operating Voltage Range Volts AC | I <sup>2</sup> t Rating t = 8.3 Milli-Seconds | Isolation Voltage     | $\theta_{jc}$ * °C/Watt | Dissipation Watts/Amp |
|-----------------------|-------------------------|-----------------------------|---------------------------|--------------------------------------|-----------------------------------------------------------------------------------|-------------------------|---------------------------------|-----------------------------|------------------------------|----------------------------------|-----------------------------------------------|-----------------------|-------------------------|-----------------------|
| MP120D2 or P120D2     | 120                     | 2                           | 20                        | 1000                                 | 3 VDC† (32V allowed)                                                              | 1 VDC                   | 600                             | 1.6 volts                   | 5 mA                         | 12 - 140                         | 2                                             | 4000 V <sub>rms</sub> | 20                      | 1.2                   |
| MP120D4 or P120D4     | 120                     | 4                           | 85                        | 1000                                 |  | 1 VDC                   | 600                             | 1.6 volts                   | 5 mA                         | 12 - 140                         | 30                                            | 4000 V <sub>rms</sub> | 6.5                     | 1.2                   |
| MP240D2** or P240D2** | 240                     | 2                           | 20                        | 1000                                 |                                                                                   | 1 VDC                   | 600                             | 1.6 volts                   | 5 mA                         | 24 - 280                         | 2                                             | 4000 V <sub>rms</sub> | 20                      | 1.2                   |
| MP240D4** or P240D4** | 240                     | 4                           | 85                        | 1000                                 |                                                                                   | 1 VDC                   | 600                             | 1.6 volts                   | 5 mA                         | 24 - 280                         | 30                                            | 4000 V <sub>rms</sub> | 6.5                     | 1.2                   |
| MP380D4               | 380                     | 4                           | 85                        | 1000                                 |                                                                                   | 1 VDC                   | 800                             | 1.6 volts                   | 5 mA                         | 24 - 420                         | 30                                            | 4000 V <sub>rms</sub> | 6.5                     | 1.2                   |

**Note:** VDE Approved on models with \*\*, add - 17 to model number.

† MP series 24 volts maximum

**Surge Current Data**

| Time Seconds | Time*** (Cycles) | 2 AMP P or MP Peak Amps | 4 AMP P or MP Peak Amps |
|--------------|------------------|-------------------------|-------------------------|
| 0.017        | 1                | 20                      | 85                      |
| 0.050        | 3                | 18                      | 66                      |
| 0.100        | 6                | 15                      | 53                      |
| 0.200        | 12               | 11                      | 45                      |
| 0.500        | 30               | 9                       | 37                      |
| 1            | 60               | 8.5                     | 31                      |
| 2            | 120              | 8                       | 28                      |
| 3            | 180              | 7.5                     | 27                      |
| 4            | 240              | 7                       | 26                      |
| 5            | 300              | 6.5                     | 25                      |
| 10           | 600              | 6                       | 24                      |

**Additional Specifications****Isolation:**

Coupling capacitance input to output  
8 PF maximum.

**Operating Temperature:**

- 40° C to 100° C

**Operating Frequency:**

25 - 65 Hz (400 Hz with 6 times higher  
off-state leakage)

**Turn-on Time:**

1/2 cycle maximum zero voltage

**Turn-off Time:**

1/2 cycle maximum zero current

**DV/DT Off State:**

200 V/microsecond

**DV/DT Commutating:**

Snubbed for rated current at 0.5  
power factor

\* $\theta_{jc}$  = Thermal resistance junction to base.  
Maximum junction temperature is 110° C.