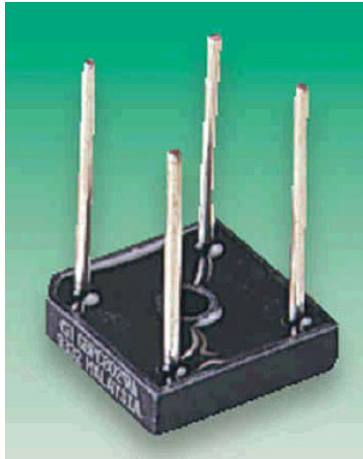


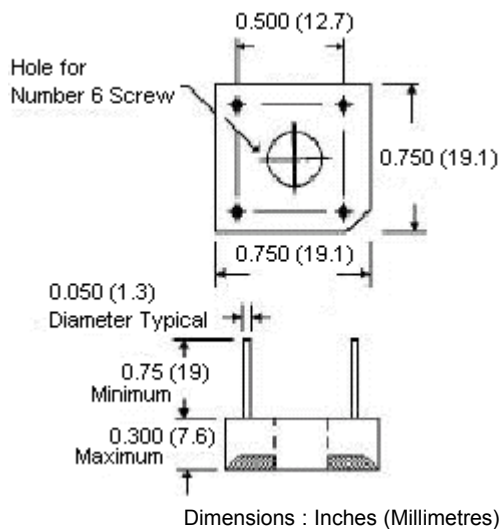
# CP 10A Series

## Single Phase Bridge Rectifiers



### Features:

- High surge current capability.
- PCB mounted/screw fixing.
- Surge overload rating-200 Amperes peak.
- Low forward voltage drop and reverse leakage.
- Small size, simple installation.
- Reliable low cost construction utilizing moulded plastic technique.



### Mechanical Data:

- Case : Moulded plastic with heatsink integrally mounted in the bridge encapsulation.
- Terminals : Lead solderable per MIL-STD-202 Method 208.

# CP 10A Series

## Single Phase Bridge Rectifiers



### Maximum Ratings and Electrical Characteristics:

Ratings at 25°C ambient temperature unless otherwise noted; resistive or inductive load at 60Hz.

|                                                                                                              | CP1000      | CP1001 | CP1004 | CP1006 | CP1008 | Units            |
|--------------------------------------------------------------------------------------------------------------|-------------|--------|--------|--------|--------|------------------|
| Maximum recurrent peak reverse voltage                                                                       | 50          | 100    | 400    | 600    | 800    | V                |
| Maximum bridge input voltage RMS                                                                             | 35          | 70     | 280    | 420    | 560    |                  |
| Maximum average rectified output at T <sub>A</sub> = 50°C*<br>See Figure 2                                   | 10.0        |        |        |        |        | A                |
| Peak one cycle surge overload current                                                                        | 200         |        |        |        |        |                  |
| Maximum forward voltage drop per element at 5.0A dc<br>and 25°C. See Figure 3                                | 1.1         |        |        |        |        | V                |
| Maximum reverse leakage at rated DC blocking<br>voltage per element at 25°C<br>See Figure 4 at 100°C         | 10.0<br>1.0 |        |        |        |        | μA<br>mA         |
| Typical junction capacitance per leg (NOTE 4) C <sub>J</sub>                                                 | 200         |        |        |        |        | pF               |
| I <sup>2</sup> t Rating for fusing (t <8.3ms)                                                                | 164         |        |        |        |        | A <sup>2</sup> S |
| Typical thermal resistance (NOTE 2) R <sub>θJA</sub><br>Typical thermal resistance (NOTE 3) R <sub>θJC</sub> | 25<br>5     |        |        |        |        | °C/W             |
| Operating temperature range                                                                                  | -55 to +125 |        |        |        |        | °C               |
| Storage temperature range                                                                                    | -55 to +150 |        |        |        |        |                  |

### Notes:

\* Unit mounted on PC board.

1. Recommended mounting position is to bolt down on heatsink with silicone thermal compound for maximum heat transfer with number 6 screw.
2. Unit mounted in free air, no heatsink, PCB at 0.375" (9.5mm) lead length with 0.5 x 0.5" (12 x 12mm) copper pads.
3. Unit mounted on a 3.0" x 3.0" x 0.11" thick (7.5 x 7.5 x 0.3cm) Aluminium plate heatsink.
4. Measured at 1.0MHz and applied reverse voltage of 4.0 volts.

# CP 10A Series

## Single Phase Bridge Rectifiers



### Rating and Characteristic Curves

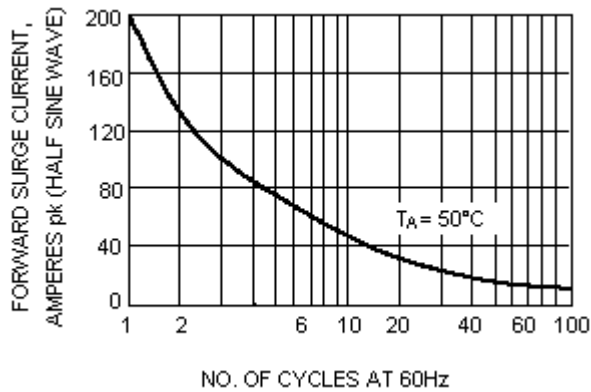


Figure 1 - Non-Recurrent Surge Rating

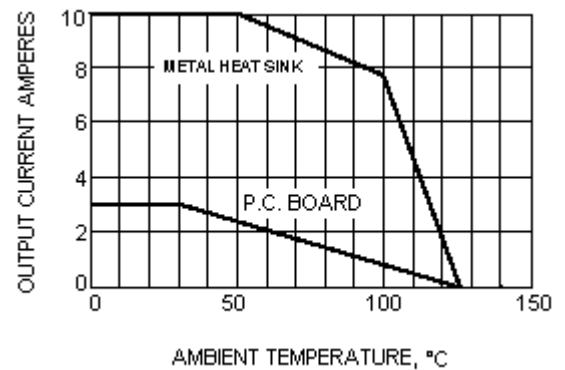


Figure 2 - Derating Curve for Output Rectified Current

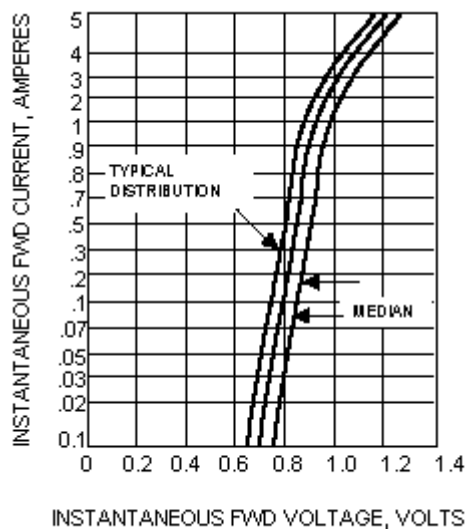


Figure 3 - Typical Forward Characteristics ( $25^\circ\text{C}$ )

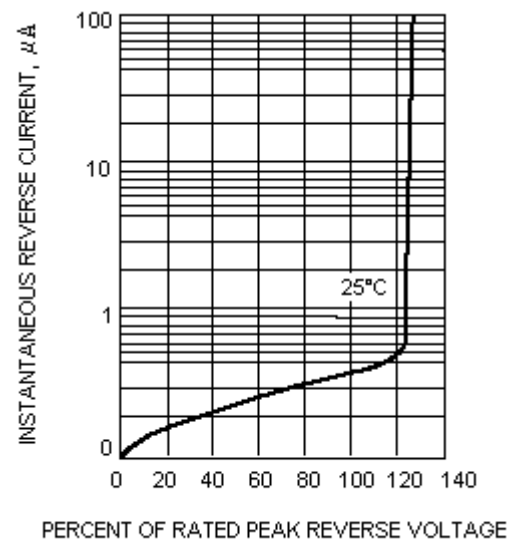


Figure 4 - Reverse Characteristics

# CP 10A Series

## Single Phase Bridge Rectifiers



### Specifications

| $I_o$ (A) at<br>$T_A = 50^\circ\text{C}$ | $I_{FSM}$<br>(A) | Body   |             | Lead   |         |                       | Current<br>Rating<br>(A) | Part Number |
|------------------------------------------|------------------|--------|-------------|--------|---------|-----------------------|--------------------------|-------------|
|                                          |                  | Height | Width/Depth | Length | Spacing | Diameter<br>(Typical) |                          |             |
| 10                                       | 200              | 7.6    | 19.1        | 19.0   | 12.7    | 1.3                   | 10                       | CP1000      |
|                                          |                  |        |             |        |         |                       |                          | CP1001      |
|                                          |                  |        |             |        |         |                       |                          | CP1004      |
|                                          |                  |        |             |        |         |                       |                          | CP1006      |
|                                          |                  |        |             |        |         |                       |                          | CP1008      |

Dimensions : Millimetres

# CP 10A Series

## Single Phase Bridge Rectifiers



### Notes:

### International Sales Offices:



**AUSTRALIA – Farnell InOne**  
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