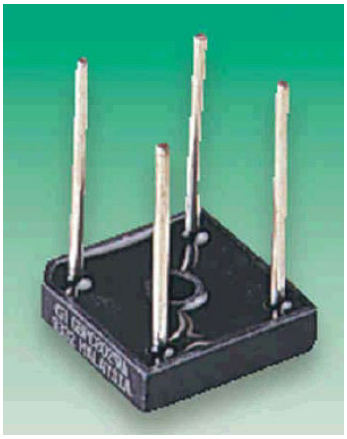
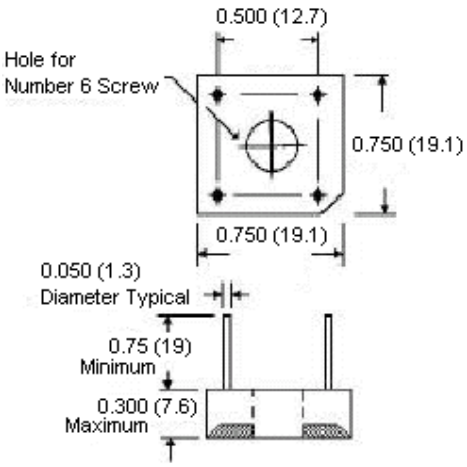
CP 10A Series

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.



Dimensions : Inches (Millimetres)

Mechanical Data:

Case : Moulded plastic with heatsink integrally mounted in the bridge encapsulation.

Terminals : Lead solderable per MIL-STD-202 Method 208.

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_A = 50°C* See Figure 2	10.0					A
Peak one cycle surge overload current	200					
Maximum forward voltage drop per element at 5.0A dc and 25°C. See Figure 3	1.1					V
Maximum reverse leakage at rated DC blocking voltage per element at 25°C See Figure 4 at 100°C	10.0 1.0					µA mA
Typical junction capacitance per leg (NOTE 4) CJ	200					pF
I^2t Rating for fusing (t <8.3ms)	164					A^2S
Typical thermal resistance (NOTE 2) RθJA Typical thermal resistance (NOTE 3) RθJC	25 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.

Rating and Characteristic Curves

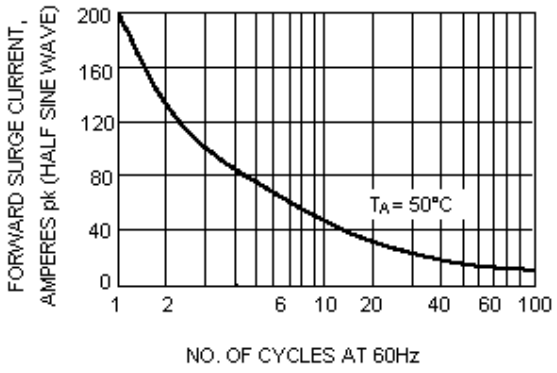


Figure 1 - Non-Recurrent Surge Rating

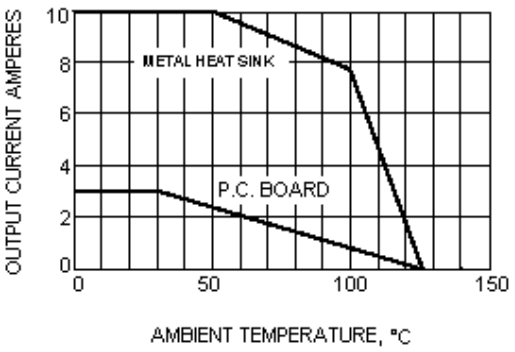


Figure 2 - Derating Curve for Output Rectified Current

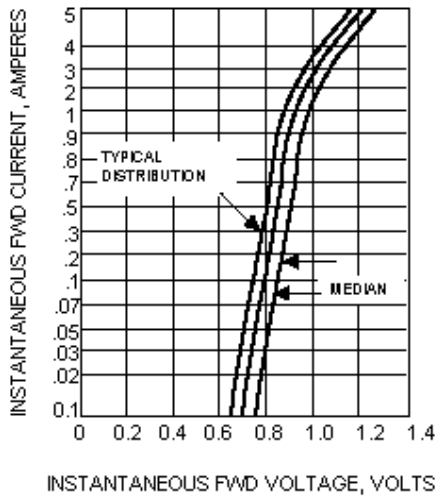


Figure 3 - Typical Forward Characteristics (25°C)

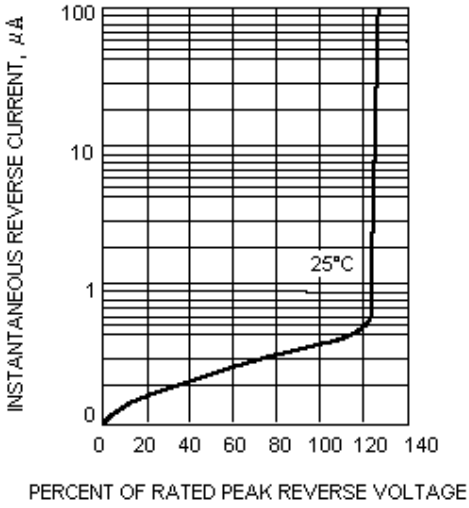


Figure 4 - Reverse Characteristics

Specifications

I_o (A) at T_A = 50°C	I_{FSM} (A)	Body		Lead			Current Rating (A)	Part Number
		Height	Width/Depth	Length	Spacing	Diameter (Typical)		
10	200	7.6	19.1	19.0	12.7	1.3	10	CP1000
								CP1001
								CP1004
								CP1006
								CP1008

Dimensions : Millimetres

Notes:

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