

Single Phase Bridge Rectifiers



CP 10 A Series

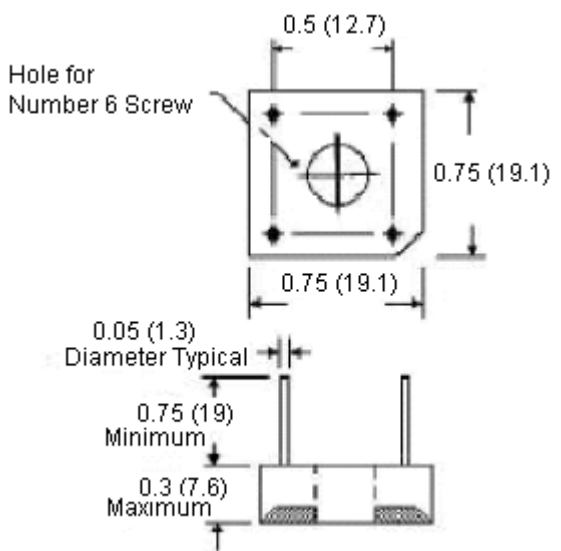


Features:

- 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



Dimensions : Inches (Millimetres)

Maximum Ratings and Electrical Characteristics

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

Parameter	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 $T_A = 50^\circ\text{C}^*$ See Figure 2	10					A
Peak One Cycle Surge Overload Current	200					
Maximum Forward Voltage Drop Per Element at 5 A 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 1					μA mA
Typical Junction Capacitance Per leg (Note 4) CJ	200					pF
I ² t Rating for Fusing (t < 8.3 ms)	164					A ² S

Single Phase Bridge Rectifiers



CP 10 A Series

Parameter	CP1000	CP1001	CP1004	CP1006	CP1008	Units
Typical Thermal Resistance (Note 2) R θ JA	25					°C / W
Typical Thermal Resistance (Note 3) R θ JC	5					
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 inches (9.5 mm) lead length with 0.5 × 0.5 inches (12 × 12 mm) copper pads
3. Unit mounted on a 3 × 3 × 0.11 inches thick (7.5 × 7.5 × 0.3 cm) aluminium plate heatsink
4. Measured at 1 MHz and applied reverse voltage of 4 V

Rating and Characteristic Curves

Figure 1 - Non-Recurrent Surge Rating

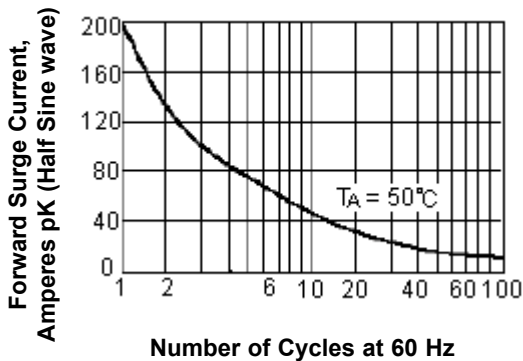


Figure 2 - Derating Curve for Output Rectified Current

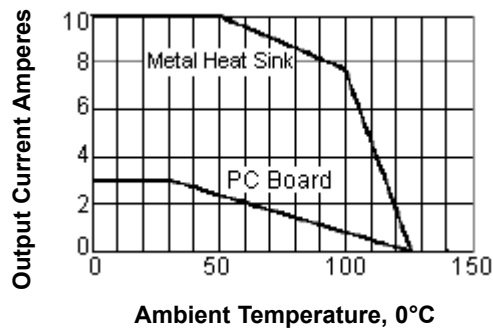


Figure 3 - Typical Forward Characteristics (25°C)

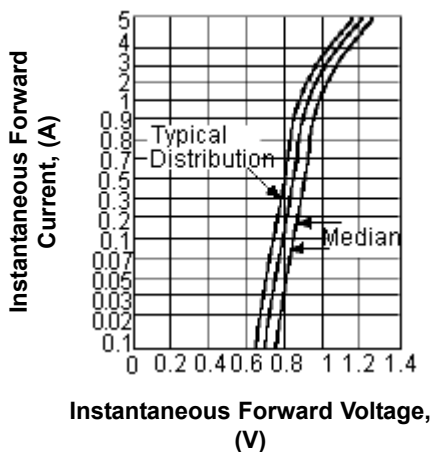
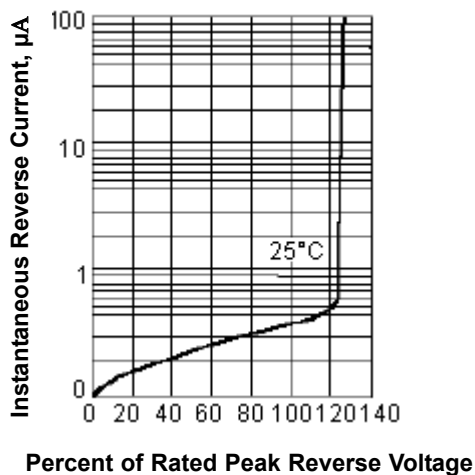


Figure 4 - Reverse Characteristics



Single Phase Bridge Rectifiers



CP 10 A Series

Specification Table

I_o (A) at $T_A = 50^\circ\text{C}$	I_{FSM} (A)	Body		Lead			Current Rating (A)	Part Number
		Height	Width / Depth	Length	Spacing	Diameter (Typical)		
10	200	7.6	19.1	19	12.7	1.3	10	CP1000
								CP1001
								CP1004
								CP1006
								CP1008

Dimensions : Millimetres

Important Notice : This data sheet and its contents (the "Information") belong to the members of the Premier Farnell group of companies (the "Group") or are licensed to it. No licence is granted for the use of it other than for information purposes in connection with the products to which it relates. No licence of any intellectual property rights is granted. The Information is subject to change without notice and replaces all data sheets previously supplied. The Information supplied is believed to be accurate but the Group assumes no responsibility for its accuracy or completeness, any error in or omission from it or for any use made of it. Users of this data sheet should check for themselves the Information and the suitability of the products for their purpose and not make any assumptions based on information included or omitted. Liability for loss or damage resulting from any reliance on the Information or use of it (including liability resulting from negligence or where the Group was aware of the possibility of such loss or damage arising) is excluded. This will not operate to limit or restrict the Group's liability for death or personal injury resulting from its negligence. Multicomp is the registered trademark of the Group. © Premier Farnell plc 2012.