

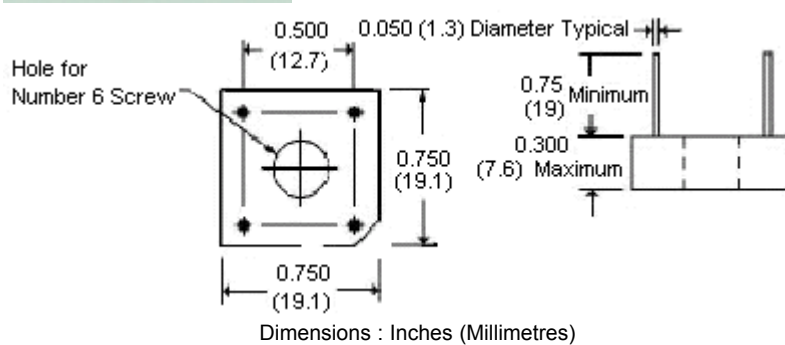
CP800 Series

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:

- Mounting position : Any.
- Terminals : Leads solderable per MIL-STD-202, Method 208.
- Mounting : Through hole for a number 6 screw.

Maximum Ratings and Electrical Characteristics

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

Parameter	CP802	CP806	CP808	Unit
Maximum recurrent peak reverse voltage	200	600	800	V
Maximum bridge input voltage RMS	140	420	560	
Maximum average rectified output at see Figure 2	$T_C = 50^\circ\text{C}$ $T_A = 40^\circ\text{C}$	8.0 3.0		A
Peak one cycle surge overload current		200		A
Maximum forward voltage drop per element at 4.0A 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		10.0 1.0		μA mA
I ² t Rating for fusing (t < 8.3ms)		166		A ² seconds
Typical junction capacitance per leg (Note 4) C _J		200		pF
Typical thermal resistance per leg (Note 3) R _{θJA} Typical thermal resistance per leg (Note 2) R _{θJL}		21 6		°C/W
Operating temperature range		-55 to +125		°C
Storage temperature range		-55 to +150		

Notes:

1. Bolt down on to a heat-sink with silicon thermal compound between bridge and mounting surface for maximum heat transfer with a number 6 screw.
2. Units Mounted on a 8.6" x 8.6" x 24" thick (22 x 22 x 0.6cm) Aluminium plate heatsink.
3. Units Mounted on PCB at 0.375" (9.5mm) lead length with 0.5" x 0.5" (12 x 12mm) copper pads.
4. Measured at 1.0MHz and applied reverse voltage.



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Rating and Characteristic Curves

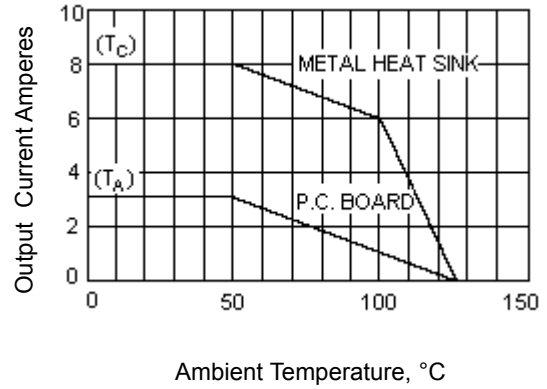
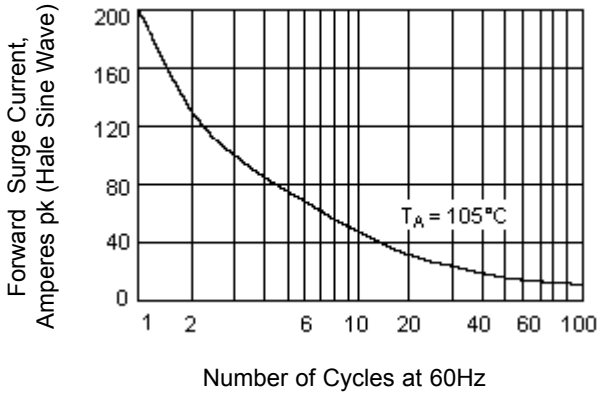


Figure 2 - Derating Curve for Output Rectified Current

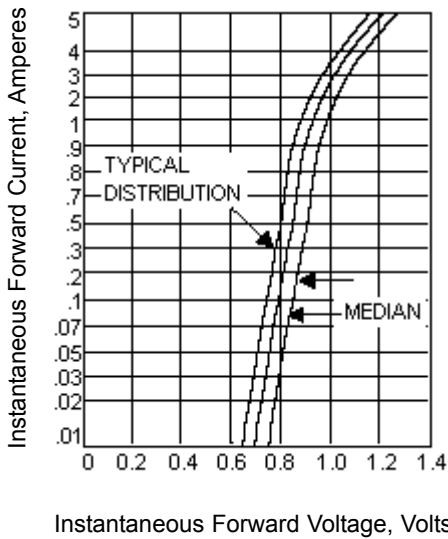


Figure 3 - Typical Forward Characteristics (25°C)

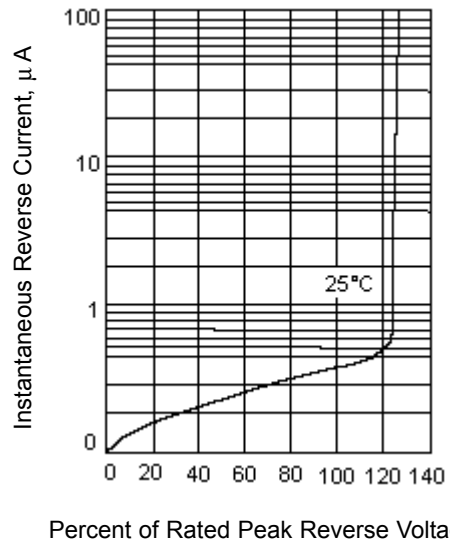


Figure 4 - Reverse Characteristics

Specifications

V _{RRM} (V)	Maximum Input Voltage (V ac)	I _O (A)	T _A (°C)	I _{FSM} (A)	Body		Lead			Part Number
					Height	Width/Depth	Length	Spacing	Diameter	
200	600	8	50	200	7.6	19.1	19.1	12.7	1.3 Typical	CP802
600	420									CP806
800	560		40							CP808

Dimensions : Millimetres



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Notes:

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