

CP6 Series

6A Single Phase Bridge Rectifier

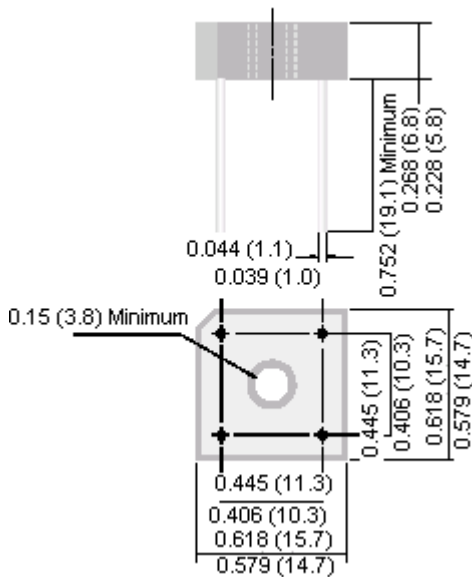


Features:

- High surge current capability.
- PCB mounted/screw fixing.
- Surge overload ratings to 125 Amperes.
- Low forward voltage, and reverse leakage.
- Small size, simple installation.
- Reliable low cost construction utilizing moulded plastic technique.

Mechanical Data :

- | | |
|-------------------|---|
| Mounting position | : Any. |
| Weight | : 0.2 ounce, 5.6 gram. |
| Terminals | : Lead solderable per MIL-STD-202 Method 208. |
| Mounting torque | : 5in.lb. maximum. |



Dimensions : Inches (Millimetres)



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Maximum Ratings and Electrical Characteristics:

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

	CP600	CP601	CP602	CP606	CP6010	Units
Maximum recurrent peak reverse voltage	50	100	200	600	1000	V
Maximum RMS bridge input voltage	35	70	140	420	700	
Maximum DC blocking voltage	50	100	200	600	1000	
Maximum average forward current at $T_A = 50^\circ\text{C}$ See Figure 2	6					A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	125					
Maximum forward voltage per bridge element specified current at 3.0A dc and 50°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
I^2t Rating for fusing ($t < 8.35\text{ms}$)	127					A ² S
Typical junction capacitance per leg (NOTE 4) C _J	186					pF
Typical thermal resistance per leg (NOTE 3) R θ JA Typical thermal resistance per leg (NOTE 2) R θ JC	22.0 7.3					°C/W
Operating temperature range T _J	-55 to +125					°C
Storage temperature range T _A	-55 to +150					

Notes:

1. Bolt down on heat-sink with silicon thermal compound between bridge and mounting surface for maximum heat transfer with number 6 screw.
2. Unit mounted on 5.0 x 6.0 x 0.11" thick (14 x 15 x 0.3cm) Aluminium plate.
3. Unit mounted on PCB at 0.395" (9.5mm) lead length with 0.5 x 0.5" (12 x 12mm) copper pads.
4. Measured at 1.0MHz and applied reverse voltage of 4.0 volts.

RATING AND CHARACTERISTICS CURVES

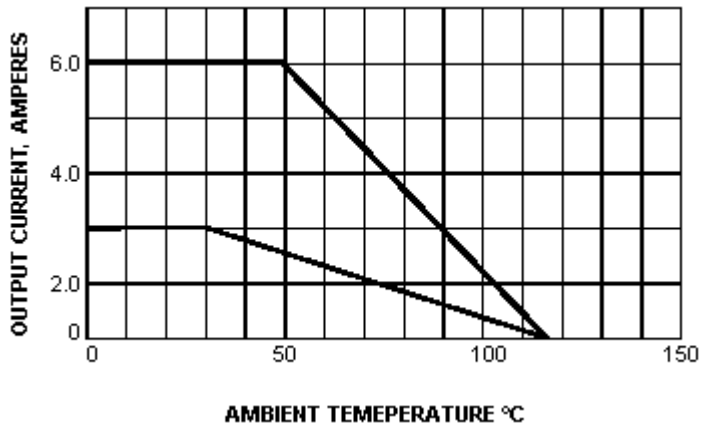


Figure 1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

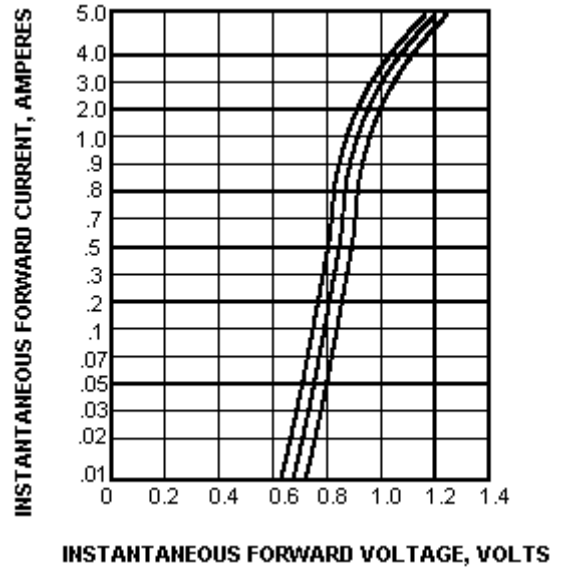


Figure 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS (25°C)

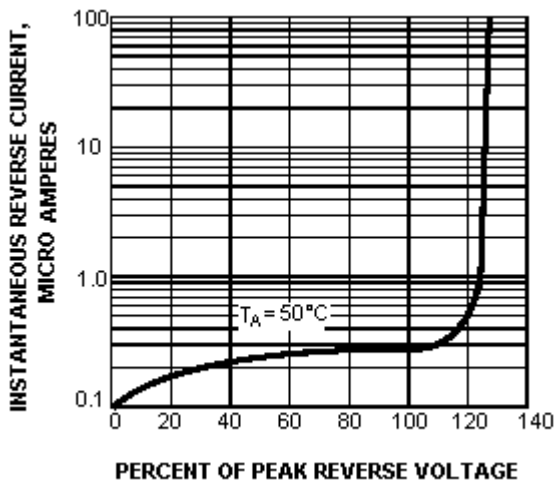


Figure 3 - TYPICAL PEAK REVERSE CHARACTERISTICS

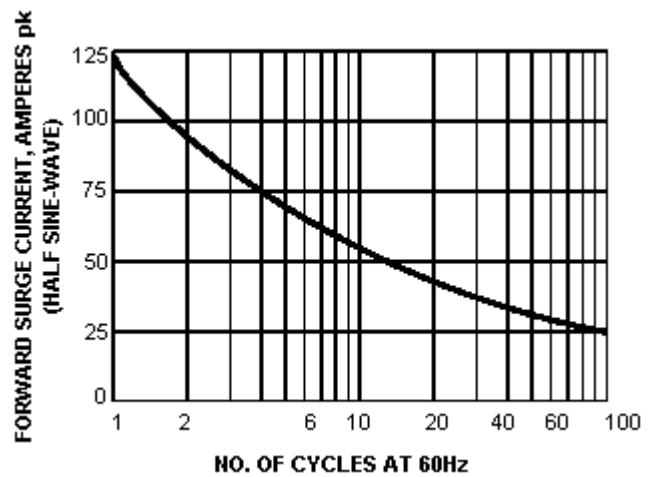


Figure 4 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

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Specifications

I_O (A) at $T_A = 50^\circ\text{C}$	I_{FSM} (A)	Body		Lead			Part Number
		Height	Width/Depth	Length	Spacing	Diameter (Typical)	
6	125	6.86	15.75	19.1	11.3	1.01	CP600
							CP601
							CP602
							CP606
							CP6010

Dimensions : Millimetres

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Notes:

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