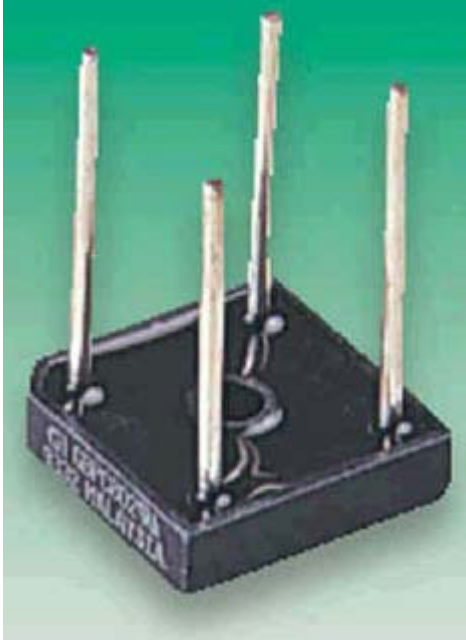


# Single Phase Bridge Rectifier



## CP6 Series

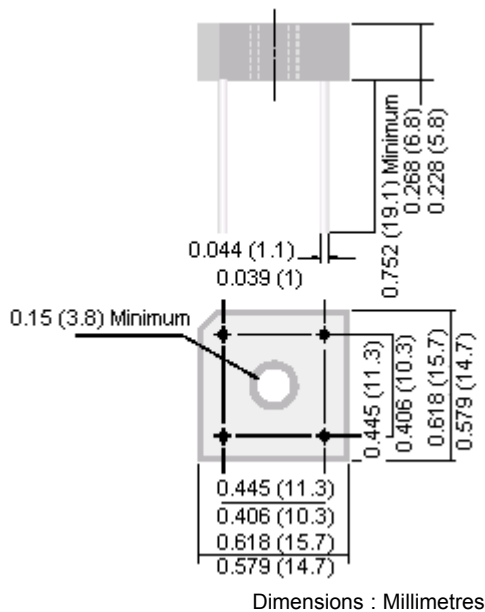


### Features:

- 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 g
Terminals	: Lead solderable per MIL-STD-202 Method 208
Mounting Torque	: 5 Inches lb maximum



### Maximum Ratings and Electrical Characteristics :

Ratings at 25°C ambient temperature unless otherwise specified  
Single phase, half wave, 60 Hz, resistive or inductive load  
For capacitive load, derate current by 20%

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## CP6 Series

	CP600	CP601	CP602	CP606	Units
Maximum Recurrent Peak Reverse Voltage	50	100	200	600	V
Maximum RMS Bridge Input Voltage	35	70	140	420	
Maximum DC Blocking Voltage	50	100	200	600	
Maximum Average Forward Current at $T_A = 50^\circ\text{C}$ See Figure 2	6				A
Peak Forward Surge Current, 8.3 ms Single Half Sine-Wave Superimposed on Rated Load	125				
Maximum Forward Voltage Per Bridge Element Specified Current at 3 A dc and $50^\circ\text{C}$ See Figure 3	1.1				V
Maximum Reverse Leakage at Rated DC Blocking Voltage per Element at $25^\circ\text{C}$ See Figure 4 at $100^\circ\text{C}$	10 1				$\mu\text{A}$ mA
$I^2t$ Rating for Fusing ( $t < 8.35$ ms)	127				$\text{A}^2\text{S}$
Typical Junction Capacitance Per Leg (Note 4) $C_J$	186				pF
Typical Thermal Resistance Per Leg (Note 3) $R_{\theta JA}$ Typical Thermal Resistance Per Leg (Note 2) $R_{\theta JC}$	22 7.3				$^\circ\text{C} / \text{W}$
Operating Temperature Range $T_J$	-55 to +125				$^\circ\text{C}$
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  $5 \times 6 \times 0.11$  Inches thick ( $14 \times 15 \times 0.3$  cm) Aluminium plate
3. Unit mounted on PCB at 0.395 Inches (9.5 mm) lead length with  $0.5 \times 0.5$  Inches ( $12 \times 12$  mm) copper pads
4. Measured at 1 MHz and applied reverse voltage of 4 V

### Rating and Characteristics Curves

Figure 1 - Derating Curve for Output Rectified Current

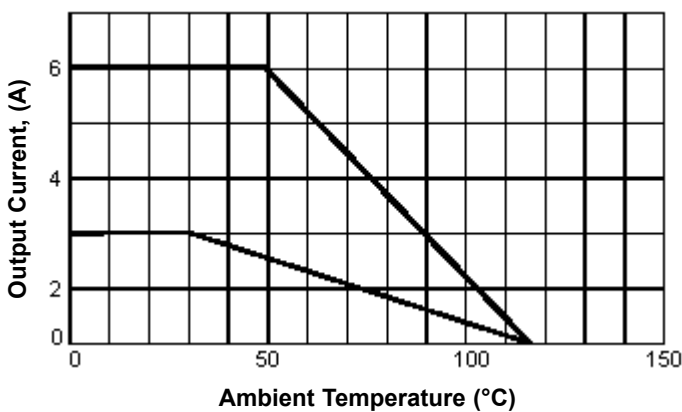
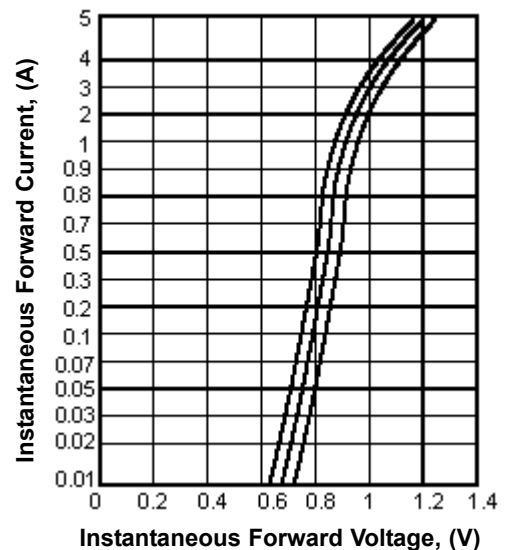


Figure 2 - Typical Instantaneous Forward Characteristics ( $25^\circ\text{C}$ )



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## CP6 Series

Figure 3 -Typical Peak Reverse Characteristics

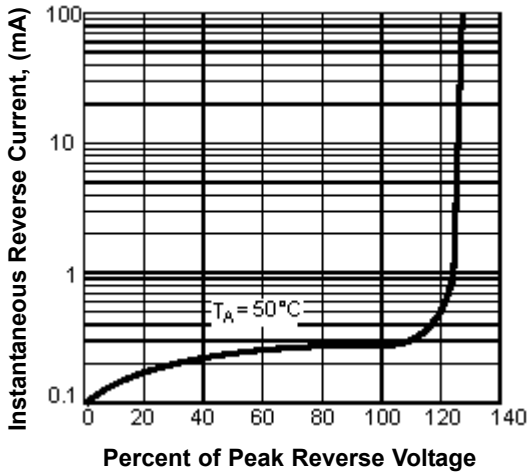
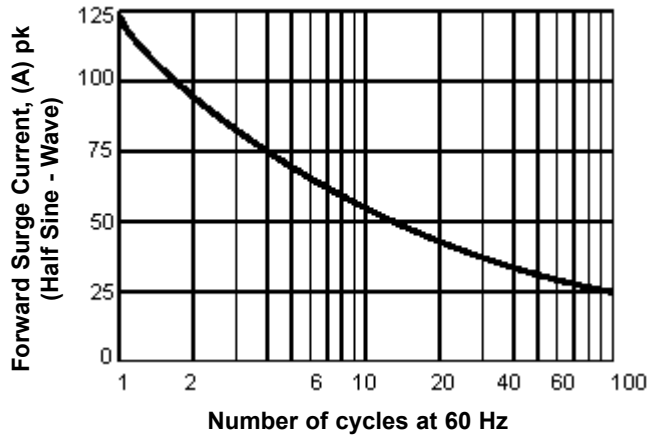


Figure 4 -Maximum Non- Repetitive Peak Forward Surge Current



### Specifications

I <sub>O</sub> (A) at T <sub>A</sub> = 50°C	I <sub>FSM</sub> (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

Dimensions : Millimetres

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