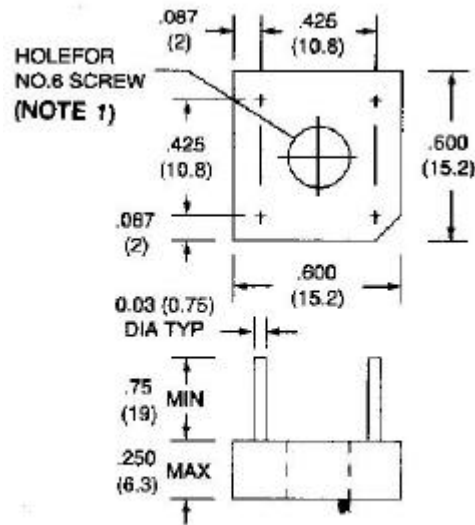


# CP300 THRU CP3010

**SINGLE-PHASE SILICON BRIDGE-P.C. MTG 2A, HEAT-SINK MTG 3A**  
**VOLTAGE - 50 to 1000 Volts CURRENT - 3.0 Amperes**

**CP-3**



Dimensions in inches and (millimeters)

## **FEATURES**

- Surge overload rating—50 Amperes peak
- Low forward voltage drop and reverse leakage
- Small size, simple installation
- Plastic package has Underwriter Laboratory Flammability Classification 94V-O
- Reliable low cost construction utilizing molded plastic technique

## **MECHANICAL DATA**

Terminals: Leads solderable per MIL-STD-202,

Method 208

Weight: 0.08 ounce, 2.5 grams

## **MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

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

	CP300	CP301	CP302	CP304	CP306	CP308	CP3010	UNITS
Max Recurrent Peak Rev Voltage	50	100	200	400	600	800	1000	V
Max Bridge Input Voltage RMS	35	70	140	280	420	560	700	V
Max Average Rectified Output at $T_C=50$ * See Fig.2 at $T_A=25$ **				3.0				A
Peak One Cycle Surge Overload Current				50				A
Max Forward Voltage Drop per element at 1.5A DC & 25 °C. See Fig.3				1.0				V
Max Rev Leakage at Rated DC Blocking Voltage per element at 25 °C. See Fig.4 at 100V				10.0				A
				1.0				mA
$I^2t$ Rating for fusing ( $t < 8.3ms$ )				15.0				A <sup>2</sup> Sec
Typical Junction capacitance per leg(Note 4)CJ				21.0				pF
Typical Thermal Resistance per leg(Note 2) R JA (Note 3) R JL				12.0				/W
				8.0				
Operating Temperature Range				-55 TO +125				
Storage Temperature Range				-55 TO +150				

## NOTES:

1. Bolt down on heat-sink with silicon thermal compound between bridge and mounting surface for maximum heat transfer with #6 screw.
2. Unit mounted on 4.0×4.0×0.11" thick (10.5×10.5×0.3cm) AL. Plate.
3. Unit mounted on P.C.B at 0.375"(9.5mm) lead length with 0.5×0.5" (12×12mm) copper pads.
4. Measured at 1 MHz and applied reverse voltage of 4.0 Volts.

# RATING AND CHARACTERISTIC CURVES

CP300 THRU CP3010

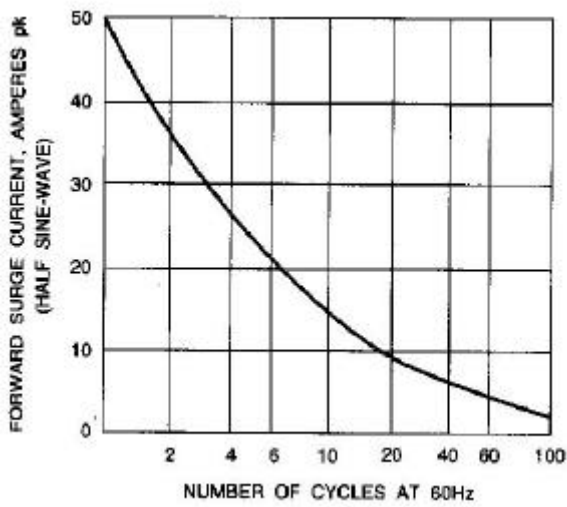


Fig. 1-NON-RECURRENT SURGE RATING

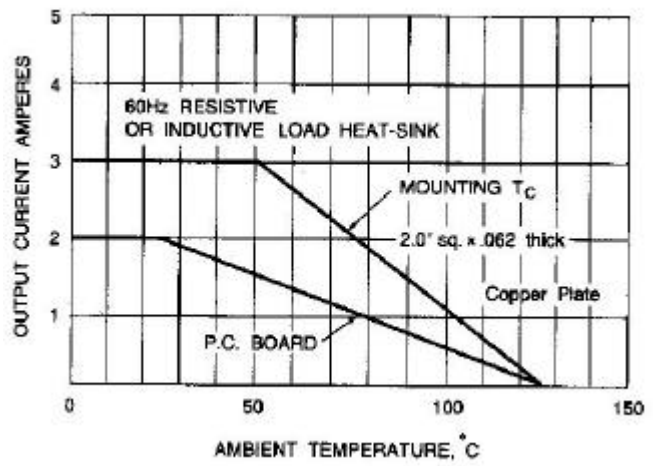


Fig. 2-DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

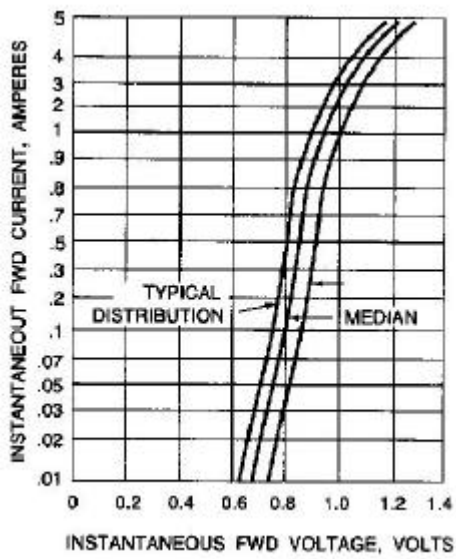


Fig. 3-TYPICAL FORWARD CHARACTERISTICS

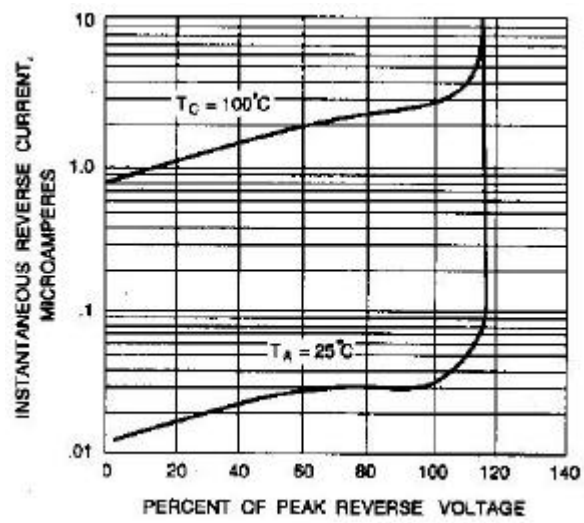


Fig. 4-TYPICAL FORWARD CHARACTERISTICS