CP300 THRU CP3010
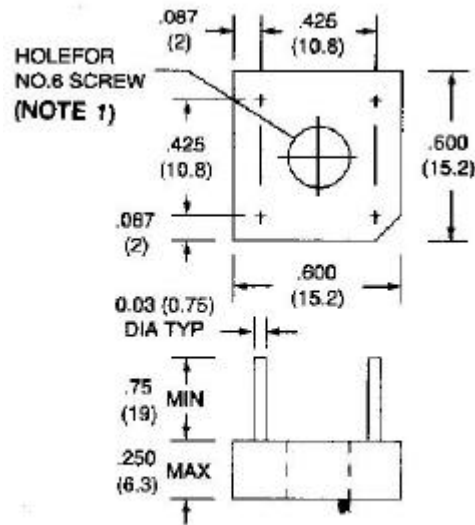
SINGLE-PHASE SILICON BRIDGE-P.C. MTG 2A, HEAT-SINK MTG 3A
VOLTAGE - 50 to 1000 Volts CURRENT - 3.0 Amperes

CP-3

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

Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

At 25 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 2.0				A
Peak One Cycle Surge Overload Current				50				A
Max Forward Voltage Drop per element at 1.5A DC & 25 . See Fig.3				1.0				V
Max Rev Leakage at Rated DC Blocking Voltage per element at 25 See Fig.4 at 100				10.0 1.0				A mA
I^2t Rating for fusing (t<8.3ms)				15.0				A^2Sec
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 8.0				/W
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
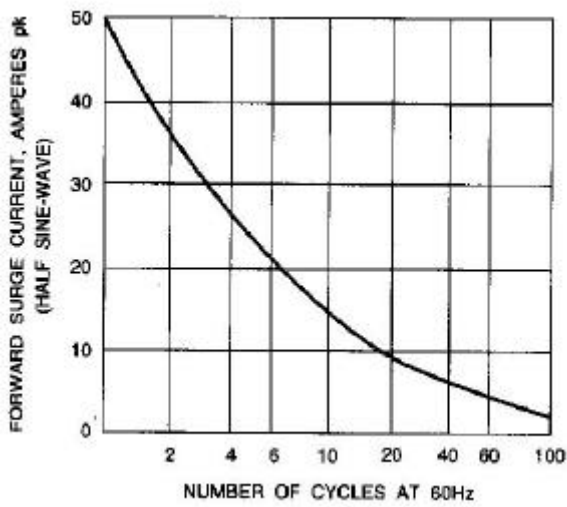
CP300 THRU CP3010
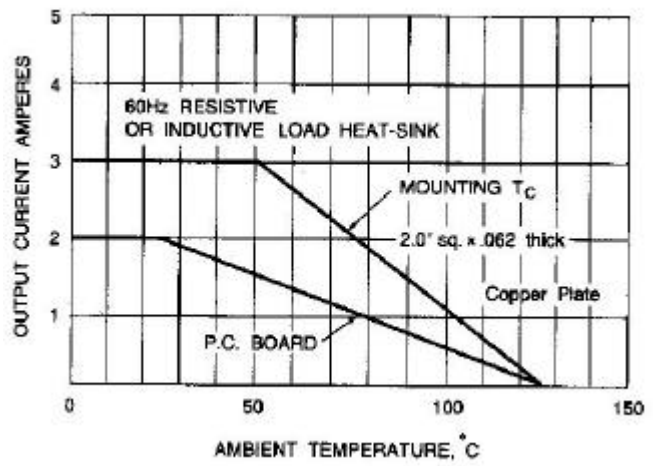

Fig. 1-NON-RECURRENT SURGE RATING

Fig. 2-DERATING CURVE FOR OUTPUT
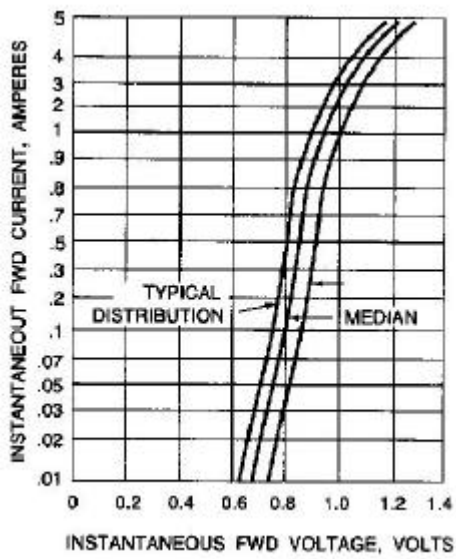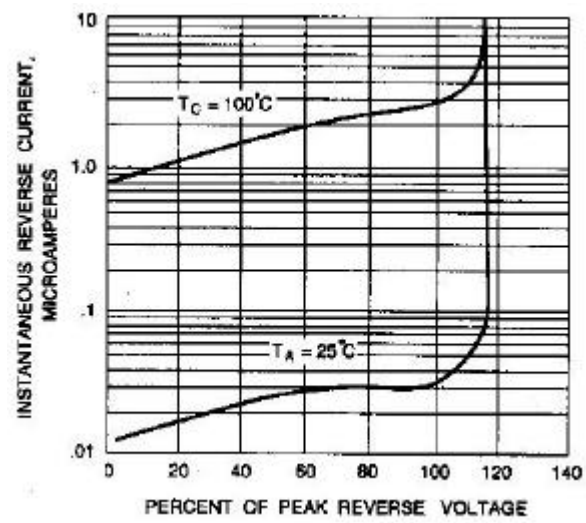RECTIFIED CURRENT

Fig. 3-TYPICAL FORWARD CHARACTERISTICS

Fig. 4- TYPICAL FORWARD CHARACTERISTICS