

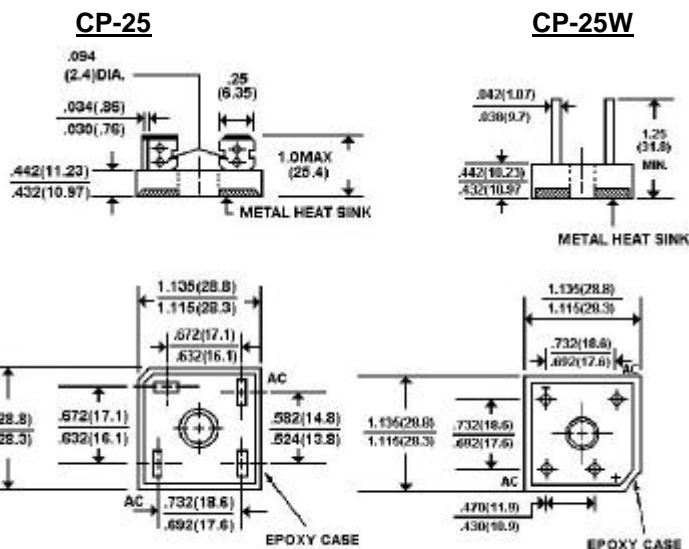
# CP1500, 2500, 3500 SERIES

## HIGH CURRENT SILICON BRIDGE RECTIFIERS

VOLTAGE - 50 to 800 Volts CURRENT - 15 to 35 Amperes

### FEATURES

- Plastic Case With Heatsink For Heat Dissipation
- Surge Overload Ratings to 400 Amperes
- The plastic package has Underwriters Laboratory Flammability Classification 94V-0



Dimensions in inches and (millimeters)

### MECHANICAL DATA

Case: Molded plastic with heatsink integrally mounted in the bridge Encapsulation

Terminals: Plated .25" FASTON or wire Lead  $\leq$  40 mils

Weight: 1 ounce, 30 grams

Mounting position: Any

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Inductive or resistive Load at 60Hz. For capacitive load derate current by 20%.

All Ratings are for  $T_C=25^\circ C$  unless otherwise specified.

		-00	-01	-02	-04	-06	-08	UNITS
Max Recurrent Peak Reverse Voltage		50	100	200	400	600	800	V
Max RMS Input Voltage		35	70	140	280	420	560	V
Max DC Blocking Voltage		50	100	200	400	600	800	V
DC Output Voltage, Resistive Load		30	62	124	250	380	505	V
DC Output Voltage, Capacitive Load		50	100	200	400	600	800	V
Max Average Forward Current for Resistive Load at $T_C=55^\circ C$	CP15			15				A
	CP25			25				A
	CP35			35				A
Non-repetitive Peak Forward Surge Current at Rated Load	CP15			300				A
	CP25			300				A
	CP35			400				A
Max Forward Voltage per Bridge Element at Specified Current	CP15 $I_F$	7.5A						V
	CP25	12.5A		1.2				V
	CP35	17.5A						V
Max Reverse Leakage Current @ $T_A=25^\circ C$ at Rated DC Blocking Voltage @ $T_A=100^\circ C$				10				$\mu$ g A
				1000				$\mu$ g A
$I^2t$ Rating for fusing ( $t < 8.3ms$ )	CP15,CP25 / CP35			374 / 664				$A^2s$
Typical Thermal Resistance (Fig. 3) $R_{\theta JC}$				2.0				$^\circ C/W$
Operating Temperature Range $T_J$				-55 to +150				$^\circ C$
Storage Temperature Range $T_A$								$^\circ C$

# RATING AND CHARACTERISTIC CURVES

## CP1500 THRU CP3500

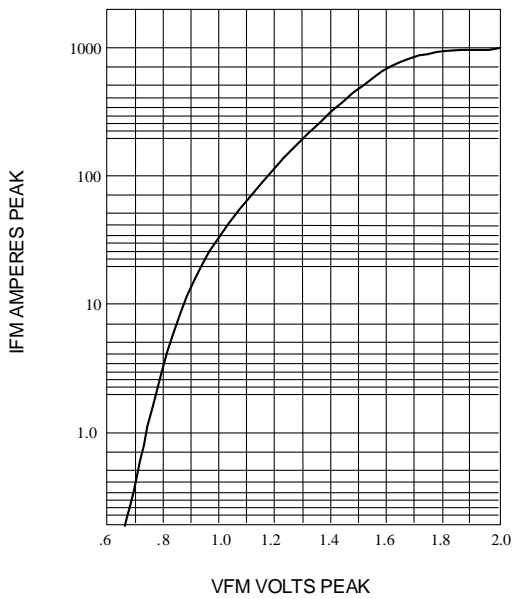


Fig. 1-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS AT  $T_J = 25\text{ }^{\circ}\text{C}$

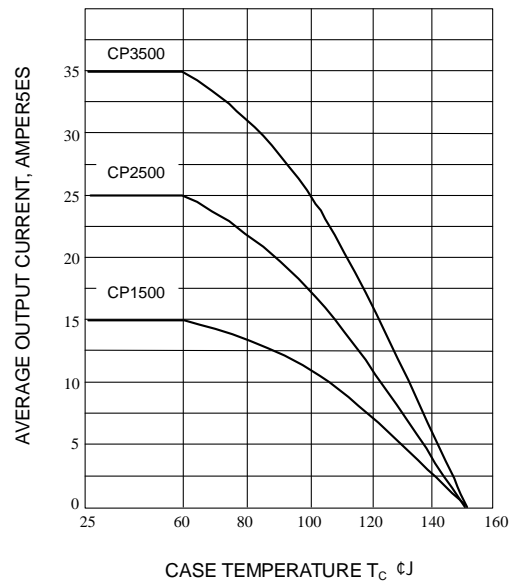


Fig. 2-OUTPUT CURRENT VS. CASE TEMPERATURE RESISTIVE OR INDUCTIVE LOAD  $T_J = 175\text{ }^{\circ}\text{C}$

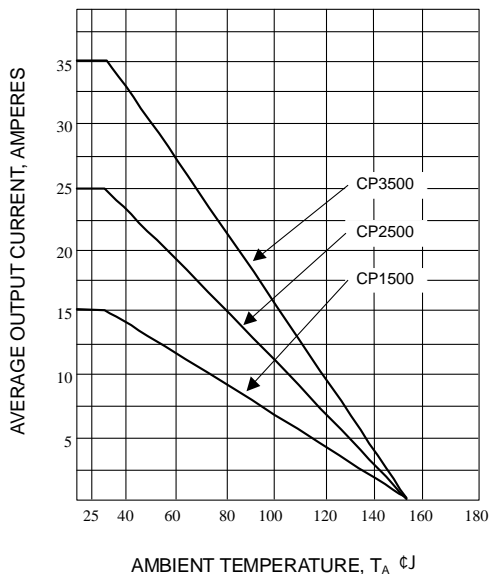


Fig. 3-OUTPUT CURRENT VS. AMBIENT TEMPERATURE RESISTIVE OR INDUCTIVE LOAD BRIDGE MOUNTED ON A 8"x8" ALUMINUM PLATE 25" THICK

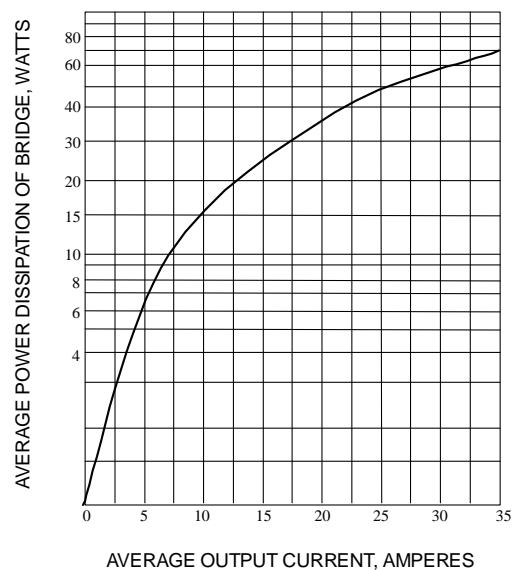


Fig. 4-POWER DISSIPATION VS. AVERAGE OUTPUT CURRENT RESISTIVE OR INDUCTIVE LOAD,  $T_J = 175\text{ }^{\circ}\text{C}$