

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-O

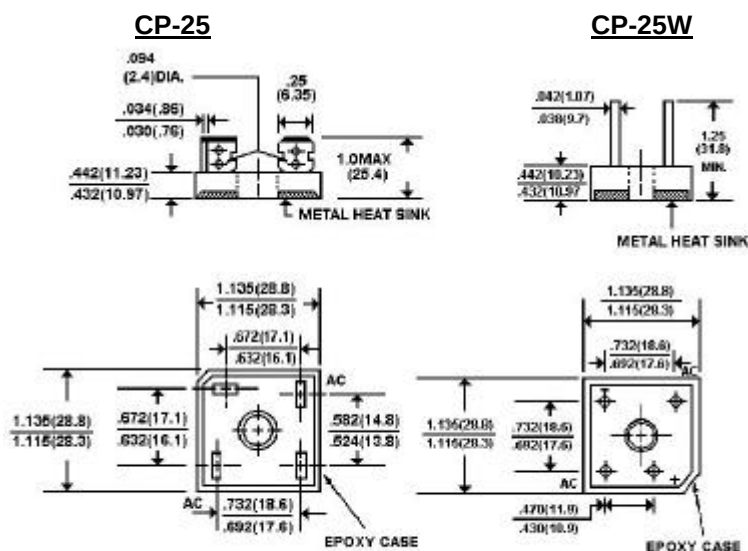
MECHANICAL DATA

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



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

All Ratings are for $T_C=25^{\circ}\text{C}$ 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 $T_C=55^{\circ}\text{C}$	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						
	CP35 17.5A							
Max Reverse Leakage Current @ $T_A=25^{\circ}\text{C}$ at Rated DC Blocking Voltage @ $T_A=100^{\circ}\text{C}$		10 1000						$\mu\text{g A}$
I^2t Rating for fusing ($t < 8.3\text{ms}$)	CP15, CP25 / CP35	374 / 664						A^2s
Typical Thermal Resistance (Fig. 3) $R_{\theta\text{JC}}$		2.0						$^{\circ}\text{C/W}$
Operating Temperature Range T_J		-55 to +150						$^{\circ}\text{C}$
Storage Temperature Range T_A								

RATING AND CHARACTERISTIC CURVES

CP1500 THRU CP3500

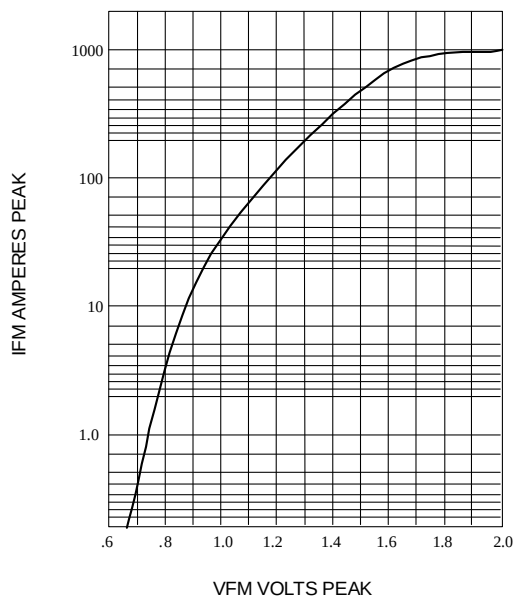


Fig. 1-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS AT $T_j = 25^\circ\text{C}$

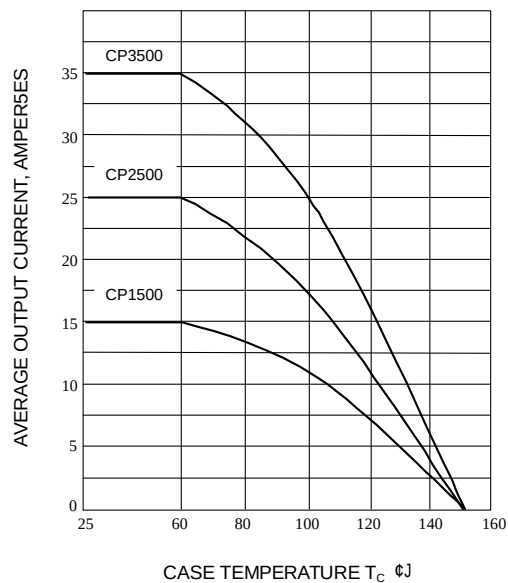


Fig. 2-OUTPUT CURRENT VS. CASE TEMPERATURE RESISTIVE OR INDUCTIVE LOAD $T_j = 175^\circ\text{C}$

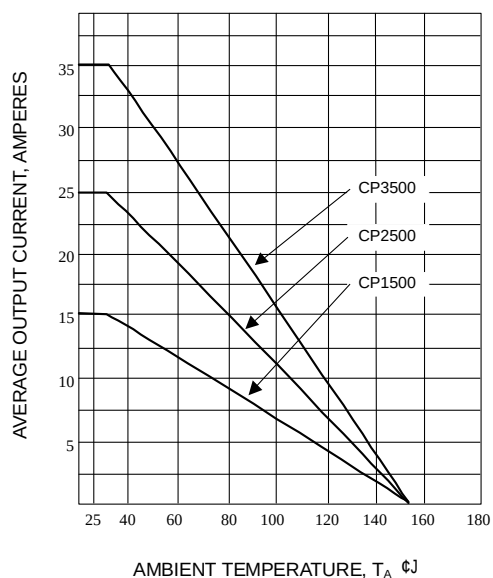


Fig. 3-OUTPUT CURRENT VS. AMBIENT TEMPERATURE RESISTIVE OR INDUCTIVE LOAD BRIDGE MOUNTED ON A 8"×8" ALUMINUM PLATE 25" THICK

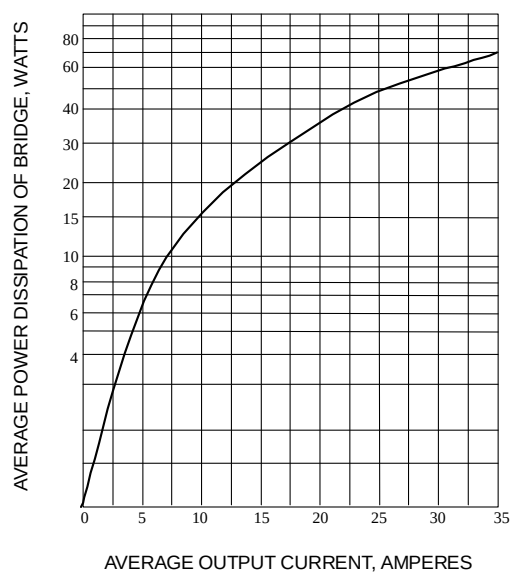


Fig. 4-POWER DISSIPATION VS. AVERAGE OUTPUT CURRENT RESISTIVE OR INDUCTIVE LOAD, $T_j = 175^\circ\text{C}$