

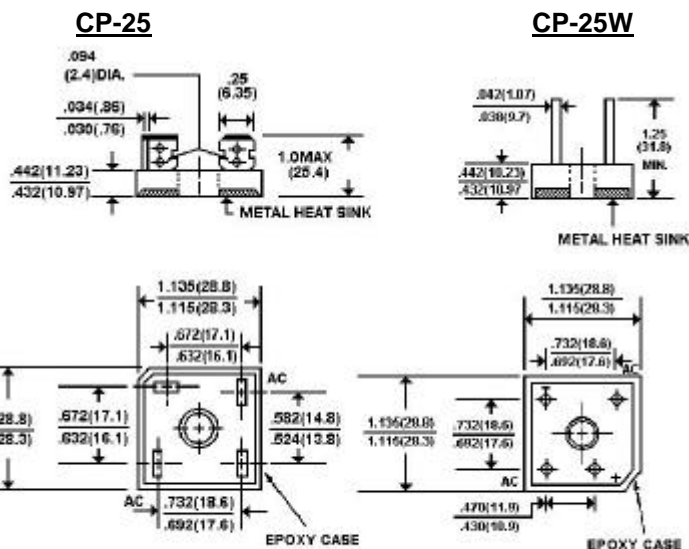
CP1500, 2500, 3500 SERIES

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



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 ϕ 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 $T_C=25^\circ\text{C}$ 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				V
	CP35	17.5A						V
Max Reverse Leakage Current @ $T_A=25^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_A=100^\circ\text{C}$				10				$\mu\text{g A}$
				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) $R_{\theta JC}$				2.0				$^\circ\text{C/W}$
Operating Temperature Range T_J				-55 to +150				$^\circ\text{C}$
Storage Temperature Range T_A								$^\circ\text{C}$

RATING AND CHARACTERISTIC CURVES

CP1500 THRU CP3500

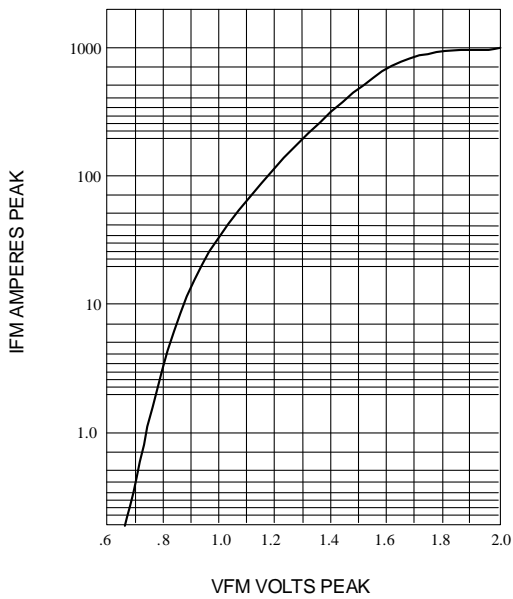


Fig. 1-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS AT $T_J = 25\text{ }^\circ\text{C}$

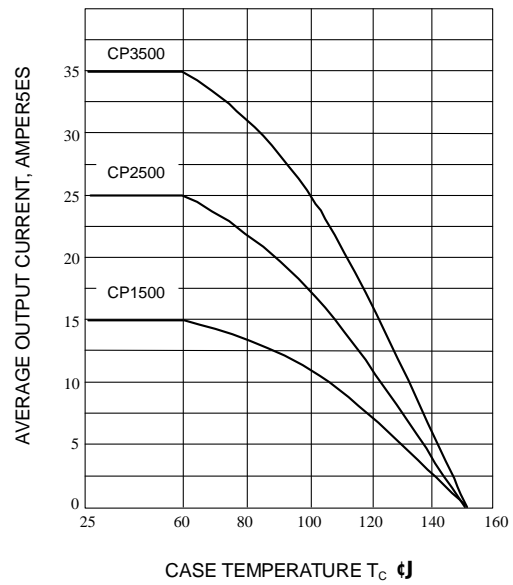


Fig. 2-OUTPUT CURRENT VS. CASE TEMPERATURE RESISTIVE OR INDUCTIVE LOAD $T_J = 175\text{ }^\circ\text{C}$

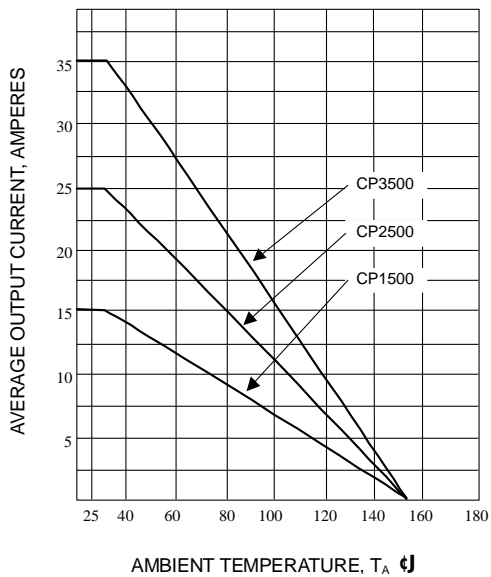


Fig. 3-OUTPUT CURRENT VS. AMBIENT TEMPERATURE RESISTIVE OR INDUCTIVE LOAD BRIDGE MOUNTED ON A 8"x8" ALUMINUM PLATE 25" THICK

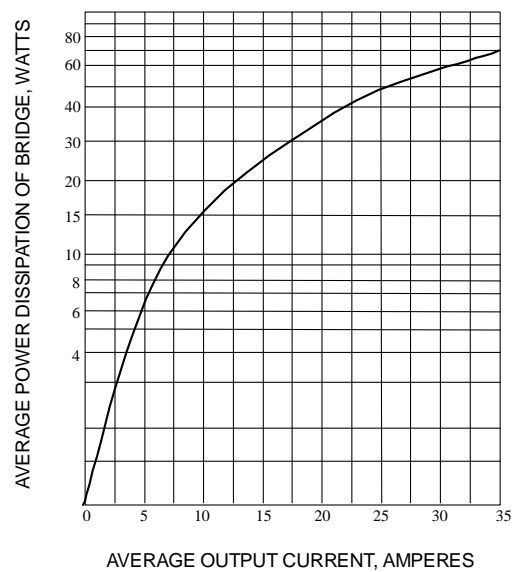


Fig. 4-POWER DISSIPATION VS. AVERAGE OUTPUT CURRENT RESISTIVE OR INDUCTIVE LOAD, $T_J = 175\text{ }^\circ\text{C}$