

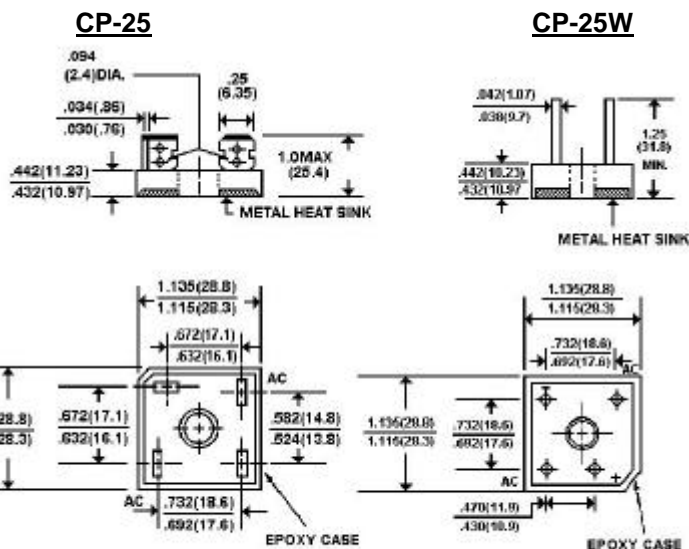
# CP1500, 2500, 3500 SERIES

## 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)

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

All Ratings are for TC=25 °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 TC=55 °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 <sub>F</sub> 7.5A							V
	CP25 12.5A			1.2				V
	CP35 17.5A							V
Max Reverse Leakage Current @ TA=25 °C at Rated DC Blocking Voltage @ TA=100 °C				10				µg A
				1000				µg A
I <sup>2</sup> t Rating for fusing ( t < 8.3ms )	CP15,CP25 / CP35			374 / 664				A <sup>2</sup> s
Typical Thermal Resistance (Fig. 3) R <sub>θJC</sub>				2.0				°C/W
Operating Temperature Range T <sub>J</sub>				-55 to +150				°C
Storage Temperature Range T <sub>A</sub>								°C

# RATING AND CHARACTERISTIC CURVES

## CP1500 THRU CP3500

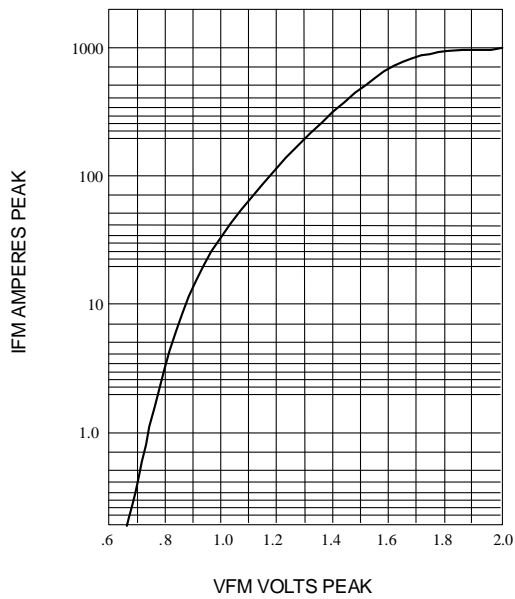


Fig. 1-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS AT  $T_J = 25\text{ }^\circ\text{C}$

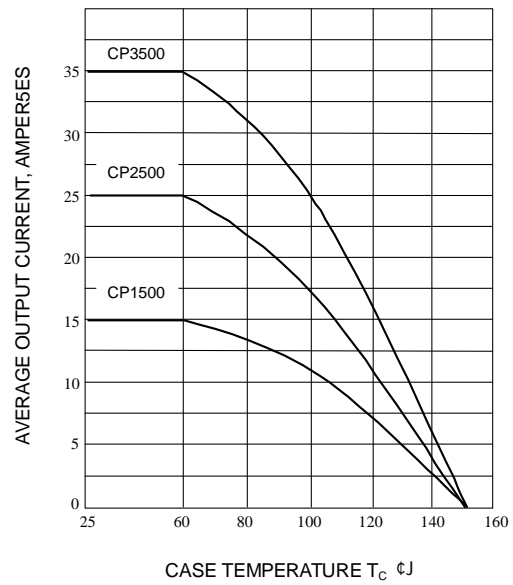


Fig. 2-OUTPUT CURRENT VS. CASE TEMPERATURE RESISTIVE OR INDUCTIVE LOAD  $T_J = 175\text{ }^\circ\text{C}$

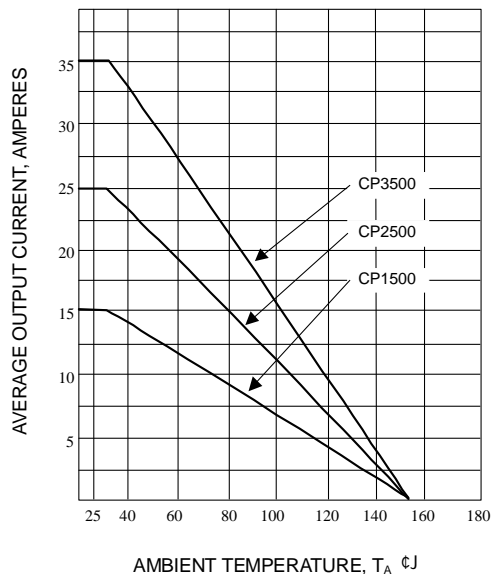


Fig. 3-OUTPUT CURRENT VS. AMBIENT TEMPERATURE RESISTIVE OR INDUCTIVE LOAD BRIDGE MOUNTED ON A 8"x8" ALUMINUM PLATE 25" THICK

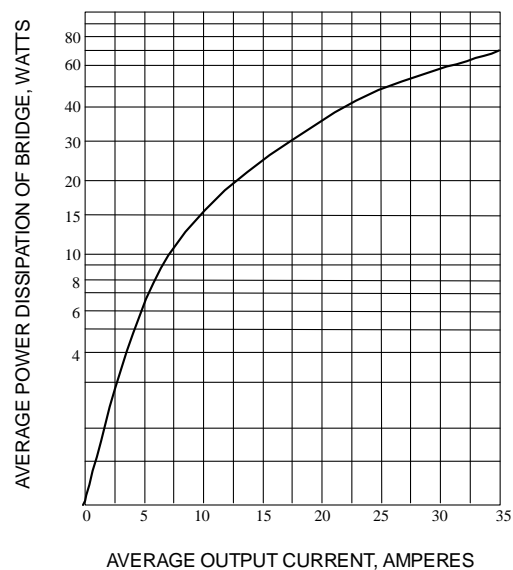


Fig. 4-POWER DISSIPATION VS. AVERAGE OUTPUT CURRENT RESISTIVE OR INDUCTIVE LOAD,  $T_J = 175\text{ }^\circ\text{C}$