

10:

CM1000, 1500, 2500, 3500, 4000, 5000 SERIES

HIGH CURRENT SILICON BRIDGE RECTIFIERS

VOLTAGE - 50 to 1000 Volts CURRENT - 10 to 50 Amperes

FEATURES

- Electrically Isolated Metal Case for Maximum Heat Dissipation
- Surge Overload Ratings to 400 Amperes
- These bridges are on the U/L Recognized Products List for currents of 10, 25 and 35 amperes

MECHANICAL DATA

Case: Metal, electrically isolated

Terminals: Plated .25" FASTON

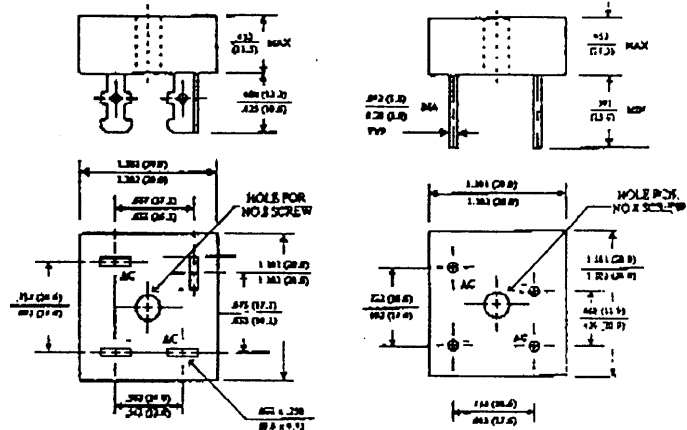
or wire Lead ϕ 40 mils

Weight: 1 ounce, 30 grams

Mounting position: Any

CM-25

CM-25W



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

		-00	-01	-02	-04	-05	-08	-010	UNITS
Max Recurrent Peak Reverse Voltage		50	100	200	400	600	800	1000	V
Max RMS Input Voltage		35	70	140	280	420	560	800	V
Max DC Blocking Voltage		50	100	200	400	600	800	1000	V
Max Average Forward Current* for Resistive Load at TC=55°C	CM10	10							A
	CM15	15							A
	CM25	25							A
	CM35	35							A
	CM40	40							A
	CM50	50							A
Non-repetitive Peak Forward Surge Current at Rated Load	CM10	200							A
	CM15	300							A
	CM25	300							A
	CM35	400							A
	CM40	500							A
	CM50	500							A
Max Forward Voltage per Bridge Element at Specified Current	CM10 5A	1.2							V
	CM15 I _F 7.5A								
	CM25 12.5A								
	CM35 17.5A								
	CM40 20A								
	CM50 25A								
Max Reverse Leakage Current at Rated DC Blocking Voltage		10							μA
I ² t Rating for fusing (t < 8.3ms)	CM10, CM15, CM25	374							A ² s
	CM35	664							
	CM40, CM50	750							
Typical Thermal Resistance (Fig. 3) R _θ JC		2.5							°C/W
Operating Temperature Range T _J		-55 to +150							°C
Storage Temperature Range T _{STG}									



NOTES:

* Unit mounted on metal heat-sink

**RATING AND CHARACTERISTIC CURVES
CM1000 THRU CM5000**

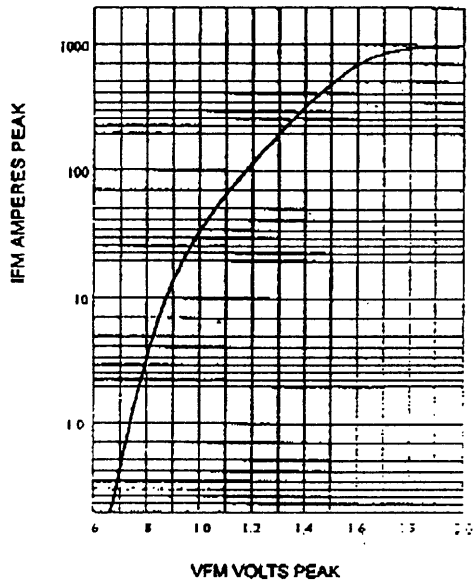


Fig. 1-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS AT $T_j = 25^\circ\text{C}$

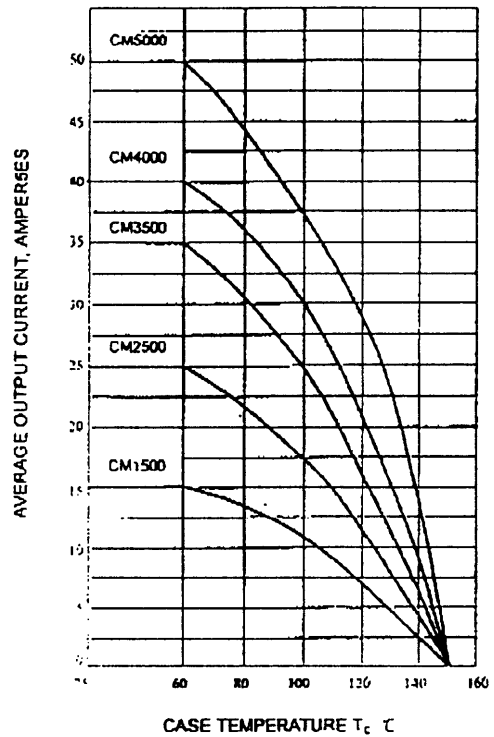


Fig. 2-OUTPUT CURRENT VS. CASE TEMPERATURE RESISTIVE OR INDUCTIVE LOAD $T_j = 150^\circ\text{C}$

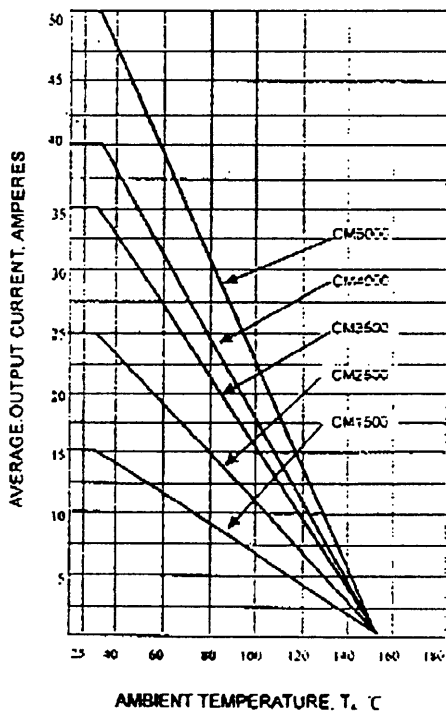


Fig. 3-OUTPUT CURRENT VS. AMBIENT TEMPERATURE RESISTIVE OR INDUCTIVE LOAD BRIDGE MOUNTED ON A 8"×8" ALUMINUM PLATE 25" THICK

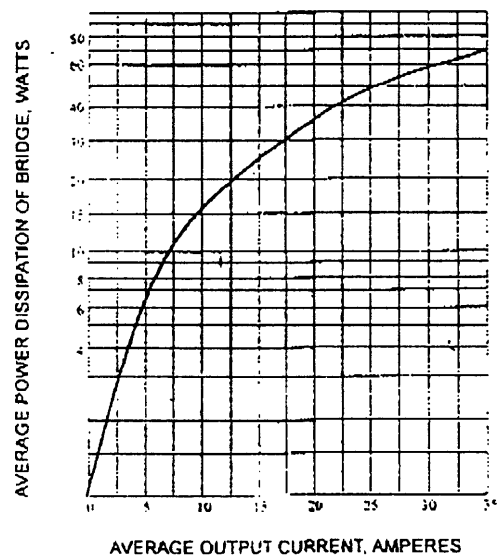


Fig. 4-POWER DISSIPATION VS. AVERAGE OUTPUT CURRENT RESISTIVE OR INDUCTIVE LOAD, $T_j = 150^\circ\text{C}$