



# DATA SHEET

## CM1500~CM15010

### HIGH CURRENT SILICON BRIDGE RECTIFIERS

VOLTAGE - 50 to 1000 Volts CURRENT - 15 Amperes

 Recognized File # E111753

#### FEATURES

- 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 15 amperes.

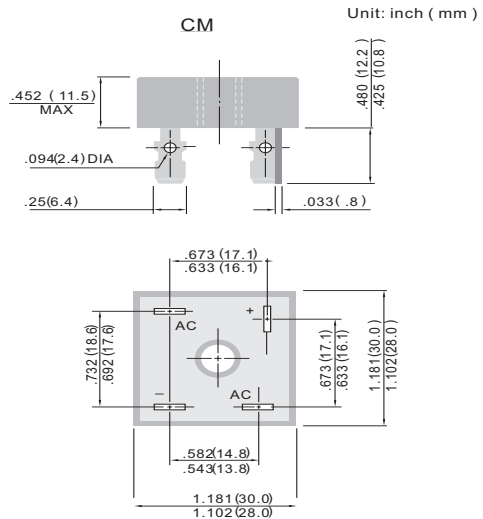
#### MECHANICAL DATA

Case: Metal

Terminals: Plated 25<sup>th</sup> FASTON

Mounting Position: Any

Weight: 1.0 ounce, 30 gram



#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

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

For capacitive load, derate current by 20%

	CM1500	CM1501	CM1502	CM1504	CM1506	CM1508	CM15010	UNITS
Maximum Recurrent Peak Reverse Voltage	50	100	200	400	600	800	1000	V
Maximum RMS Bridge input Voltage	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	50	100	200	400	600	800	1000	V
Maximum Average Forward Current $T_A=55^\circ\text{C}$	15.0							A
Non-repetitive Peak Forward Surge Current , rated load	300							A
Maximum Forward Voltage per Bridge Element Specified Current at 7.5A	1.2							V
Maximum Reverse Current at Rated DC Blocking Voltage per element	10.0							$\mu\text{A}$
$I^2t$ Rating for fusing ( $t < 8.35$ ms)	374							$\text{A}^2\text{S}$
Typical Thermal resistance ( Fig 3) $R_{\theta\text{JC}}$	2.5							$^\circ\text{C}/\text{W}$
Operating Temperature Range $T_J$	-55 to +150							$^\circ\text{C}$
Storage Temperature Range $T_A$	-55 to +150							$^\circ\text{C}$

NOTES: \*Unit mounted on metal heat-sink



RATING AND CHARACTERISTIC CURVES

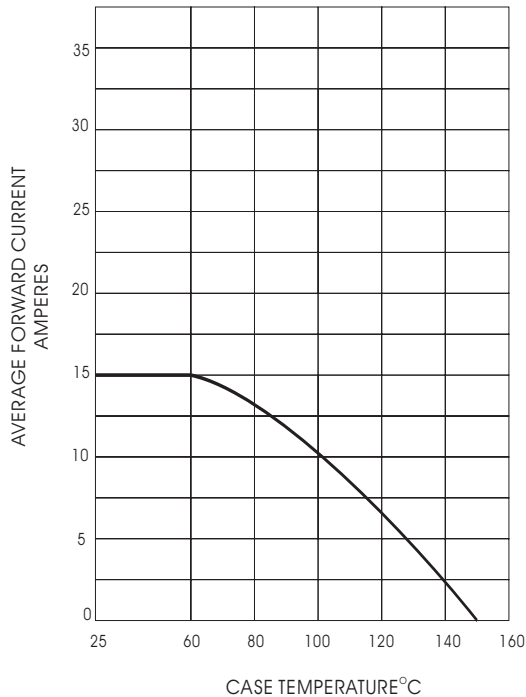


Fig. 1- OUTPUT CURRENT VS. CASE TEMPERATURE  
RESISTIVE OR INDUCTIVE LOAD  $T_J = 150^\circ\text{C}$

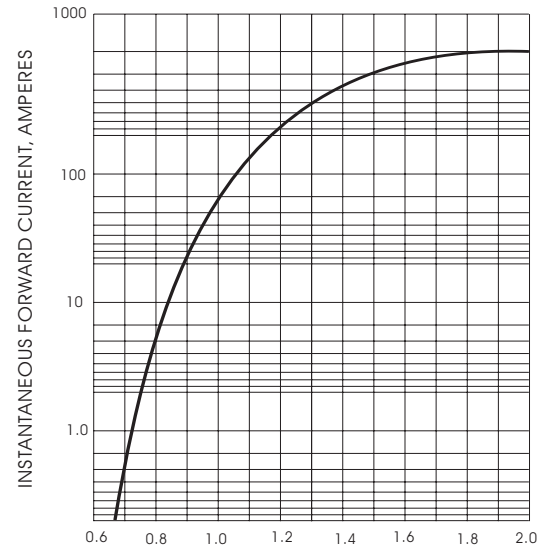


Fig. 2- TYPICAL INSTANTANEOUS  
FORWARD CHARACTERISTICS  
AT  $T_J = 25^\circ\text{C}$

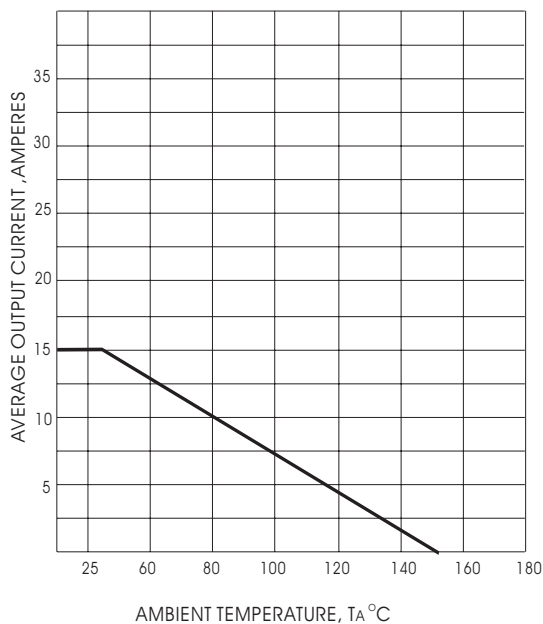


Fig. 3- OUTPUT CURRENT VS. AMBIENT TEMPERATURE  
RESISTIVE OR INDUCTIVE LOAD  
BRIDGE MOUNTED ON A 8" x 8" ALUMINUM PLATE 25" THICK

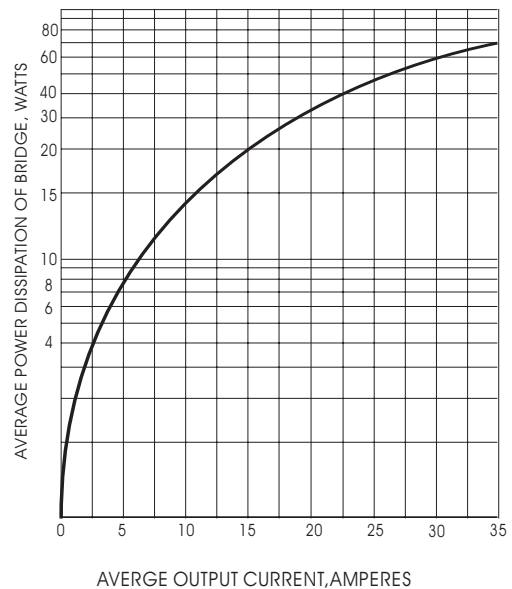


Fig. 4- POWER DISSIPATION VS. AVERAGE OUTPUT  
CURRENT RESISTIVE OR INDUCTIVE LOAD  
 $T_J = 150^\circ\text{C}$