PANJIT SEMI CONDUCTOR

DATA SHEET

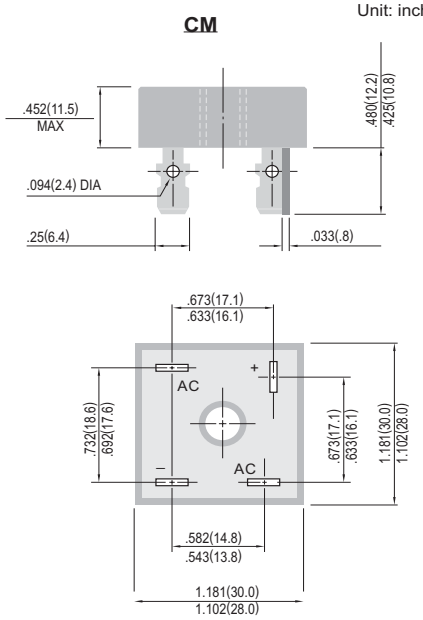
CM5000~CM50010

HIGH CURRENT SILICON BRIDGE RECTIFIER

VOLTAGE 50 to 1000 Volts CURRENT - 50 Ampere

Recongnized File # E111753

Unit: inch (mm)



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 50 amperes.

MECHANICAL DATA

Case: Metal

Terminals: Plated 25" 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%

	CM5000	CM5001	CM5002	CM5004	CM5006	CM5008	CM50010	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°C	50.0							A
Non-repetitive Peak Forward Surge Current , rated load	400							A
Maximum Forward Voltage per Bridge Element Specified Current at 25A	1.2							V
Maximum Reverse Current at Rated DC Blocking Voltage per element	10.0							μA
I^2t Rating for fusing (t < 8.35 ms)	664							A^2S
Typical Thermal resistance (Fig 3) RθJC	2.5							°C/W
Operating Temperature Range T_J	-55 to +150							℃
Storage Temperature Range T_A	-55 to +150							℃

NOTES: *Unit mounted on metal heat-sink

RATING AND CHARACTERISTIC CURVES

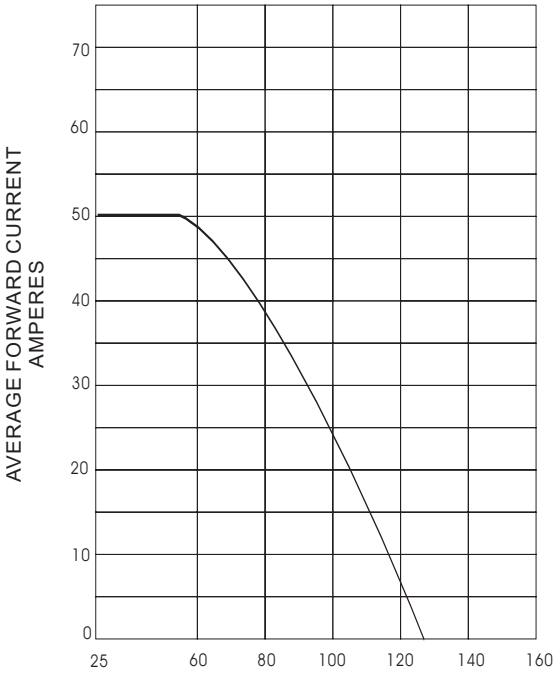


Fig. 1- OUTPUT CURRENT VS.CASE TEMPERATURE
RESISTIVE OR INDUCTIVE LOAD T_J=150°C

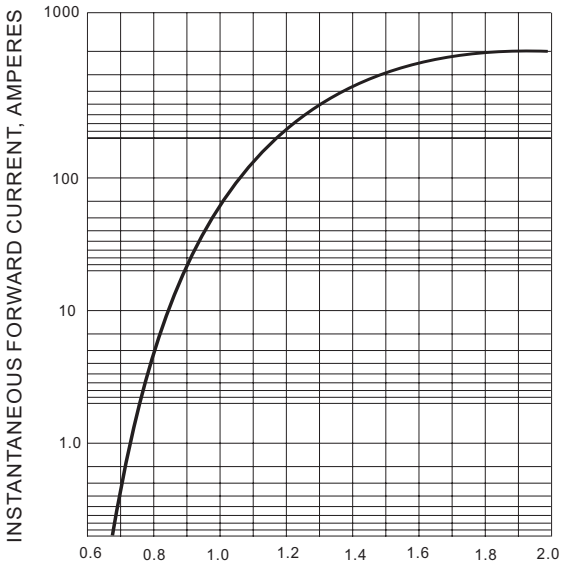


Fig. 2- TYPICAL INSTANTANEOUS
FORWARDCHARACTERISITCS
AT T_J=25°C

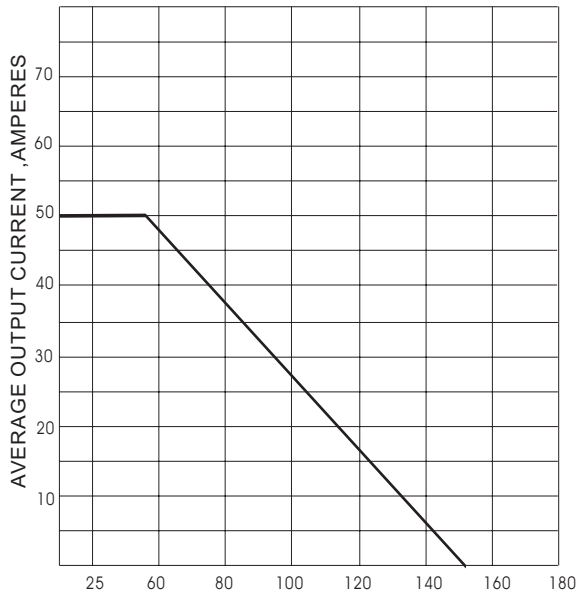


Fig. 3- OUTPUT CURRENT VS.AMBIENT TEMPERATURE
RESISTIVE OR INDUCTIVE LOAD
BRIDGE MOUNTED ON A 8" x 8" ALUMINUM PLATE 25"THICK

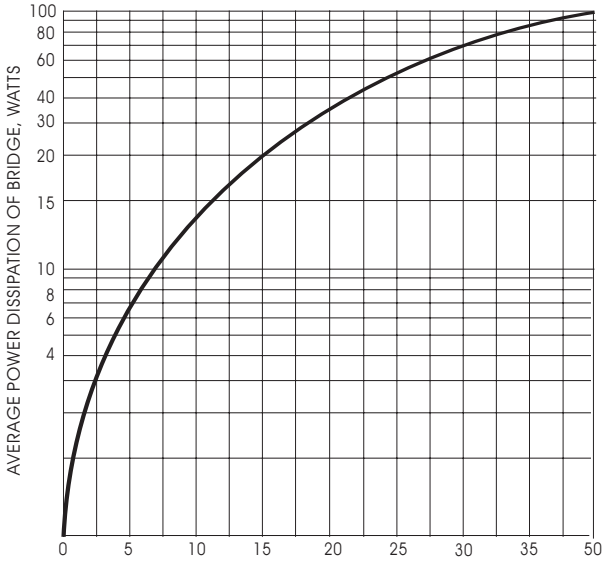


Fig. 4- POWER DISSIPATION VS.AVERAGE OUTPUT
CURRENT RESISTIVE OR INDUCTIVE LOAD
TJ=150°C