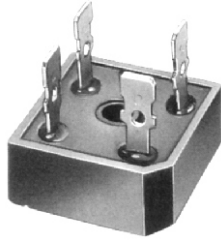


# MP50 SERIES

## SINGLE-PHASE SILICON BRIDGE



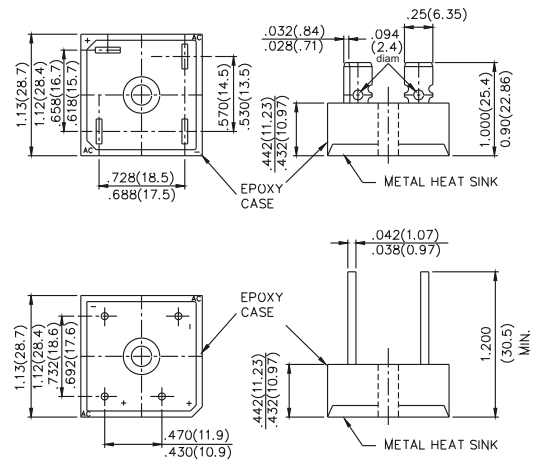
**CHENG-YI  
ELECTRONIC**



### FEATURES

- Surge overload rating-400 amperese peak
- Low forward voltage drop
- Mounting position:Any
- Electrically isolated base-1800Volts
- Solderable .25" FASTON terminals
- Materials used carries U/L recognized

VOLTAGE RANGE  
50 TO 1000 VOLTS PRV  
CURRENT  
50 Amperes



Dimensions in inches and (millimeters)

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.

Resistive or inductive load 60Hz

For capacitive load, derate current by 20%.

		MP 50005	MP 5001	MP 5002	MP 5004	MP 5006	MP 5008	MP 5010	UNITS
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS Bridge Input Voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum Average Forward Output Current @ $T_C=55^\circ\text{C}$	$I_{(AV)}$	50							A
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Mehtod)	$I_{FSM}$	400							A
Maximum DC Forward Voltage per bridge element at 25.0A DC	$V_F$	1.2							V
Maximum DC Reverse Current at Rated DC Blocking Voltage per bridge element @ $T_A=25^\circ\text{C}$	$I_R$	10							$\mu\text{A}$
@ $T_A=100^\circ\text{C}$		1							$\mu\text{A}$
$I^2 t$ Rating for fusing ( $t < 8.3\text{ms}$ )	$I^2 t$	737							$\text{A}^2\text{S}$
Typical Thermal Resistance (Note.1)	$R\theta_{JC}$	2.5							$^\circ\text{C}/\text{W}$
Operating Temperature Range	$T_J$	-55 to +125							$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-55 to +150							$^\circ\text{C}$

# MP50 SERIES

## SINGLE-PHASE SILICON BRIDGE



**CHENG-YI  
ELECTRONIC**

### RATING AND CHARACTERISTICS CURVES MP50 SERIES

Fig. 1 - MAXIMUM FORWARD SURGE CURRENT

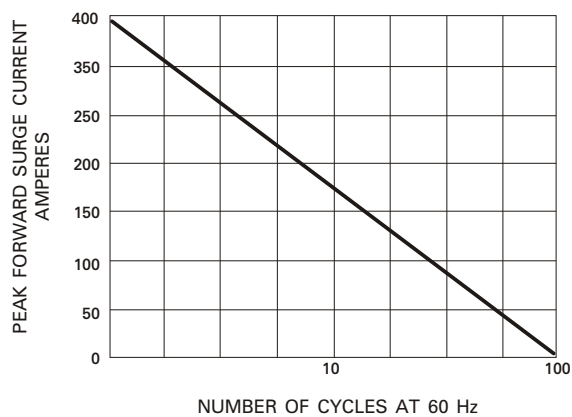


Fig. 2 - DERATING CURVE FOR  
OUTPUT RECTIFIED CURRENT

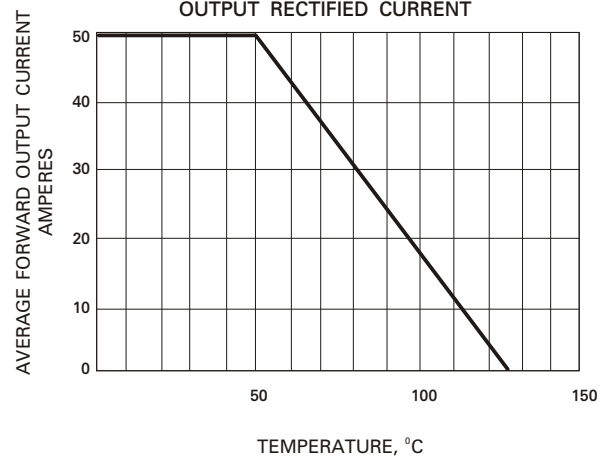


Fig. 3 - TYPICAL FORWARD  
CHARACTERISTICS

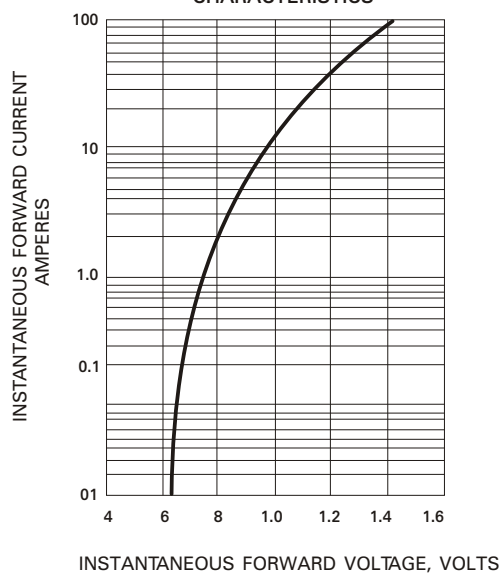


Fig. 4 - TYPICAL REVERSE  
CHARACTERISTICS

