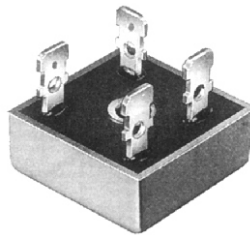


# KBPC25 SERIES

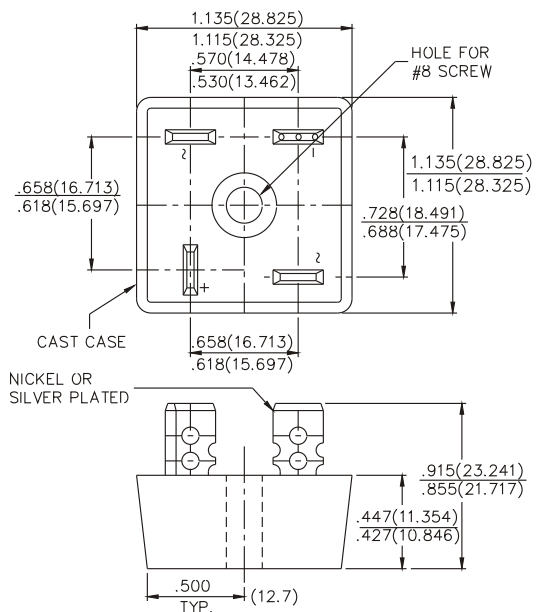
## SINGLE-PHASE SILICON BRIDGE



**CHENG-YI  
ELECTRONIC**



VOLTAGE RANGE  
50 TO 1000 VOLTS PRV  
CURRENT  
25 Amperes



### FEATURES

- Surge overload rating-300 amperes peak
- Low forward voltage drop
- Mounting Position: Any
- Electrically isolated base-1800 Volts
- Solderable .25"FASTON terminals
- Materials use carries U/L recognition
- UL recognized file #E149311

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Resistive or inductive load, 60 Hz. For capacitive load, derate current by 20%.

|   |                | KBPC<br>25005 | KBPC<br>2501 | KBPC<br>2502 | KBPC<br>2504 | KBPC<br>2506 | KBPC<br>2508 | KBPC<br>2510 | 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 @ $T_C=55^\circ\text{C}$   | $I_{(AV)}$     | 25            |              |              |              |              |              |              | A                              |
| Peak Forward Surge Current<br>8.3 ms single half sine-wave<br>superimposed on rated load(JEDEC Mehtod)        | $I_{FSM}$      | 300           |              |              |              |              |              |              | A                              |
| Maximum DC Forward Voltage drop per element at 12.5A DC   | $V_F$          | 1.2           |              |              |              |              |              |              | V                              |
| Maximum DC Reverse Current @ $T_A=25^\circ\text{C}$<br>at rated DC Blocking Voltage @ $T_A=100^\circ\text{C}$ | $I_R$          | 10<br>1       |              |              |              |              |              |              | $\mu\text{A}$<br>$\mu\text{A}$ |
| $I^2 t$ Rating for fusing ( $t < 8.3\text{ms}$ )  | $I^2 t$        | 373           |              |              |              |              |              |              | $\text{A}^2\text{S}$           |
| 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   |              |              |              |              |              |              | $^\circ\text{C}$               |

# KBPC25 SERIES

## SINGLE-PHASE SILICON BRIDGE



**CHENG-YI  
ELECTRONIC**

### RATING AND CHARACTERISTICS CURVES KBPC25 SERIES

Fig.1 - MAXIMUM FORWARD SURGE CURRENT

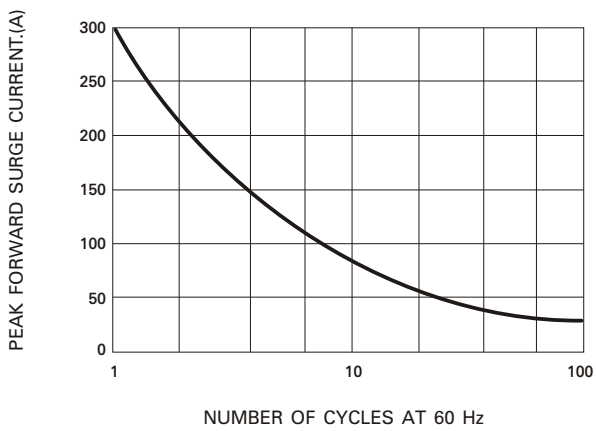


Fig.2 - DERATING CURVE FOR  
OUTPUT RECTIFIED CURRENT

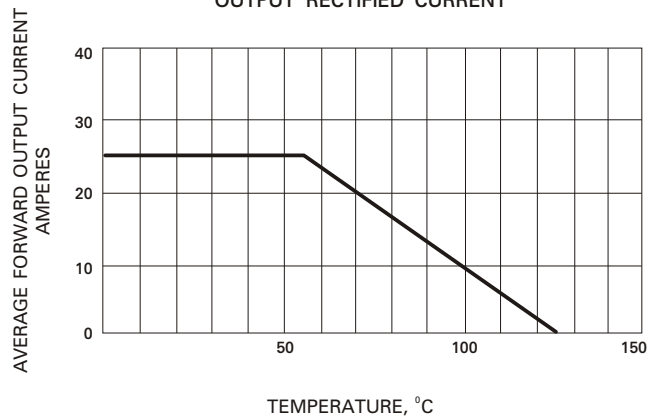


Fig.3 - TYPICAL FORWARD  
CHARACTERISTICS

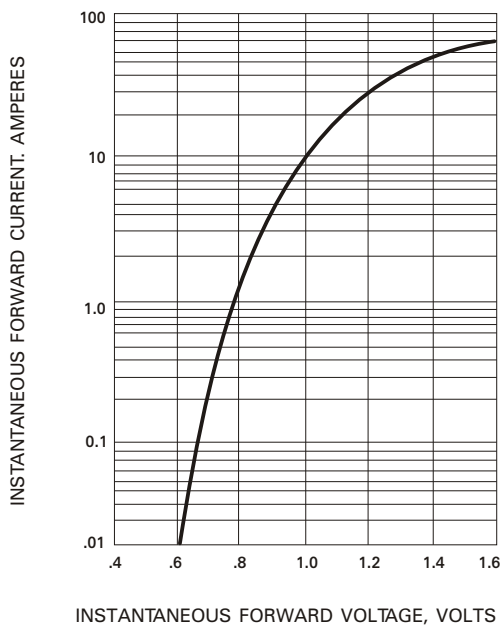


Fig.4 - TYPICAL REVERSE  
CHARACTERISTICS

