

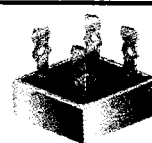
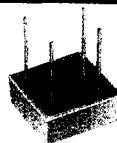


# SOLID STATE INC.

46 FARRAND STREET  
BLOOMFIELD, NEW JERSEY 07003

www.solidstateinc.com

# KBPC25

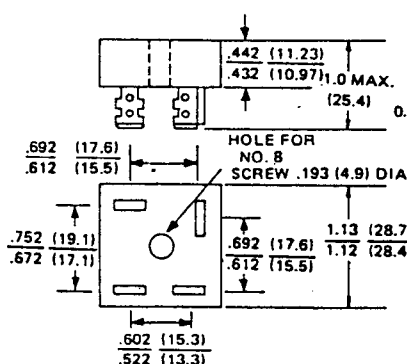


**VOLTAGE RANGE**  
50 to 1000 Volts  
**CURRENT**  
25 Amperes

## FEATURES

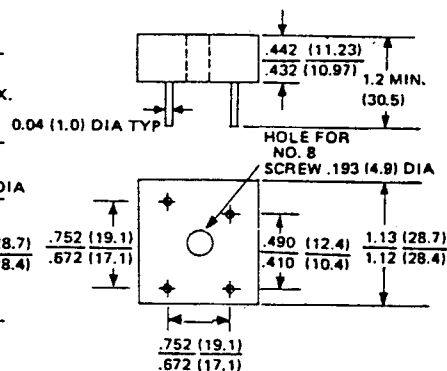
- Rating to 1000V PRV
- 300 amperes surge capability
- High efficiency
- Electrically isolated metal case for maximum heat dissipation
- Weight: 1.1 ounce 31.6 grams (Terminal)  
0.95 ounce 28.5 grams (Wire)
- Mounting: thru hole for # 8 screw

## KBPC



Terminal

## KBPC-W



Wire

All dimensions in inches and (millimeters)

## 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%.

|                                                                                                                        |                 | KBPC<br>25005  | KBPC<br>2501  | KBPC<br>2502  | KBPC<br>2504  | KBPC<br>2506  | KBPC<br>2508  | KBPC<br>2510  | UNIT             |
|------------------------------------------------------------------------------------------------------------------------|-----------------|----------------|---------------|---------------|---------------|---------------|---------------|---------------|------------------|
|                                                                                                                        |                 | KBPC<br>25005W | KBPC<br>2501W | KBPC<br>2502W | KBPC<br>2504W | KBPC<br>2506W | KBPC<br>2508W | KBPC<br>2510W |                  |
| Maximum Recurrent Peak Reverse Voltage                                                                                 | $V_{RRM}$       | 50             | 100           | 200           | 400           | 600           | 800           | 1000          | V                |
| Maximum RMS 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<br>@ $T_c = 55^\circ C$                                                         | $I_{(AV)}$      | 25             |               |               |               |               |               |               | A                |
| Peak Forward Surge Current, 8.3 ms Single Half<br>Sine-wave superimposed on Rated Load<br>(JEDEC Method)               | $I_{FSM}$       | 300            |               |               |               |               |               |               | A                |
| Maximum Forward Voltage per Bridge Element<br>at 12.5A, DC                                                             | $V_F$           | 1.2            |               |               |               |               |               |               | V                |
| Maximum DC Reverse Current at Rated DC<br>Blocking Voltage per Bridge<br>@ $T_A = 25^\circ C$<br>@ $T_A = 100^\circ C$ | $I_R$           | 10<br>1        |               |               |               |               |               |               | $\mu A$<br>mA    |
| $I^2 t$ Rating for fusing ( $t < 8.3ms$ )                                                                              | $I^2 t$         | 373            |               |               |               |               |               |               | A <sup>2</sup> S |
| Typical Thermal Resistance (Note. 2)                                                                                   | $R_{\theta JA}$ | 2.5            |               |               |               |               |               |               | °C/W             |
| Operating Temperature Range                                                                                            | $T_J$           | -55 to + 125   |               |               |               |               |               |               | °C               |
| Storage Temperature Range                                                                                              | $T_{STG}$       | -55 to + 150   |               |               |               |               |               |               | °C               |

NOTE:

2. Mounted on a 11.8 in<sup>2</sup> X 0.06 in thick (300mm<sup>2</sup> X 1.5mm thick) Copper plate.