

CURRENT 50.0 Ampere  
 VOLTAGE RANG 50 to 1000 Volts

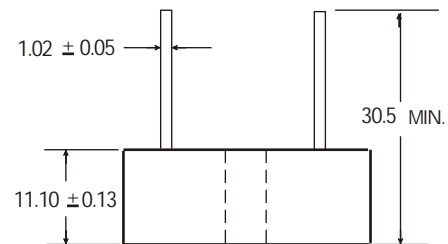
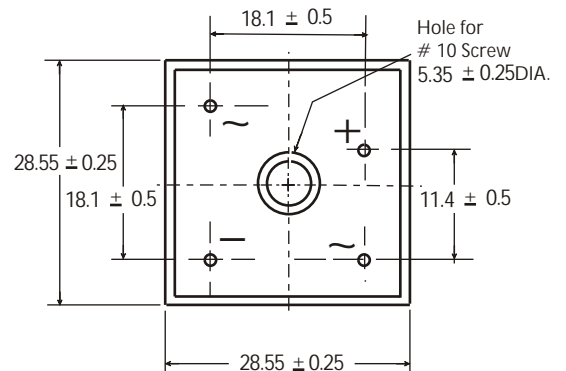
## KBPC5001W THRU KBPC5010W

### Features

- This series is SGS listed under the Recognized Component Index, file number SZXEC1902259902
- Surge overload ratings to 300 amperes
- The plastic material used carries Underwriters Laboratory flammability recognition 94V-0
- Universal 4-way terminals, snap-on, wrap-around, solder or P.C. Board mounting
- High temperature soldering guaranteed 265°C/10 seconds at 5 lbs (2.3kg) tension

### Mechanical Data

Case: Metal case  
 Terminals: Plated copper leads .04" (1.02 mm) diameter  
 Weight: 1.007 ounce, 28.5 grams (approx)  
 Mounting Position: Bolt down with silicone thermal compound between bridge and mounting surface for maximum heat transfer efficiency  
 Mounting Torque: 20 in-lb max.



Dimensions in millimeters(1mm=0.0394")

### Maximum Ratings & Thermal Characteristics

Rating at 25°C ambient temperature unless otherwise specified, Resistive or Inductive load, 60 Hz.  
 For Capacitive load derate current by 20%.

| Parameter   | Symbol           | KBPC50005W   | KBPC5001W | KBPC5002W | KBPC5004W | KBPC5006W | KBPC5008W | KBPC5010W | unit |                    |
|---|------------------|--------------|-----------|-----------|-----------|-----------|-----------|-----------|------|--------------------|
| Maximum repetitive peak reverse voltage   | VRRM             | 50           | 100       | 200       | 400       | 600       | 800       | 1000      | V    |                    |
| Maximum RMS bridge input voltage  | VRMS             | 35           | 70        | 140       | 280       | 420       | 560       | 700       | V    |                    |
| Maximum DC blocking voltage   | VDC              | 50           | 100       | 200       | 400       | 600       | 800       | 1000      | V    |                    |
| Maximum average forward rectified output current at TA=55°C                           | IF(AV)           | 50           |           |           |           |           |           |           |      | A                  |
| Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method) | IFSM             | 400          |           |           |           |           |           |           |      | A                  |
| Rating for fusing ( t<8.3ms)  | I <sup>2</sup> t | 664          |           |           |           |           |           |           |      | A <sup>2</sup> sec |
| Typical thermal resistance per element (1)  | ReJA             | 2.5          |           |           |           |           |           |           |      | °C / W             |
| Operating junction and storage temperature range                                      | TJ, TSTG         | -55 to + 150 |           |           |           |           |           |           |      | °C                 |

### Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified. Resistive or Inductive load, 60Hz.  
 For Capacitive load derate by 20 %.

| Parameter   | Symbol | KBPC50005W | KBPC5001W | KBPC5002W | KBPC5004W | KBPC5006W | KBPC5008W | KBPC5010W | Unit |    |
|---|--------|------------|-----------|-----------|-----------|-----------|-----------|-----------|------|----|
| Maximum instantaneous forward voltage drop per leg at 25.0A   | VF     | 1.0        |           |           |           |           |           |           |      | V  |
| Maximum DC reverse current at rated DC blocking voltage per element<br><small>TA =25°C<br/>                 TA =125°C</small> | IR     | 10<br>500  |           |           |           |           |           |           |      | μA |

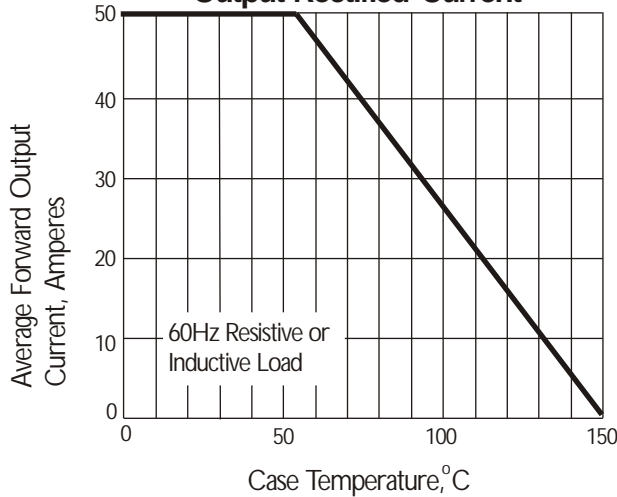
Notes: (1)Thermal resistance from Junction to Ambient on P.C.board mounting.

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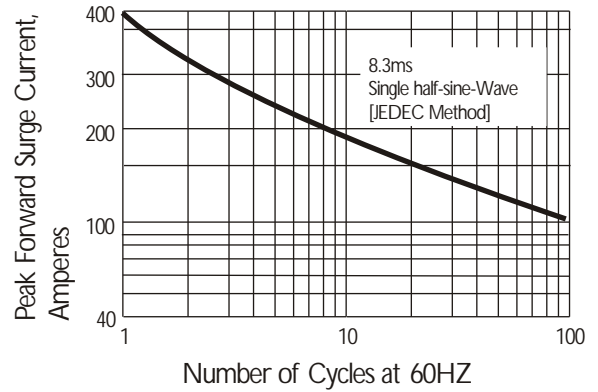
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**Rating and Characteristic Curves** (TA=25°C Unless otherwise noted)

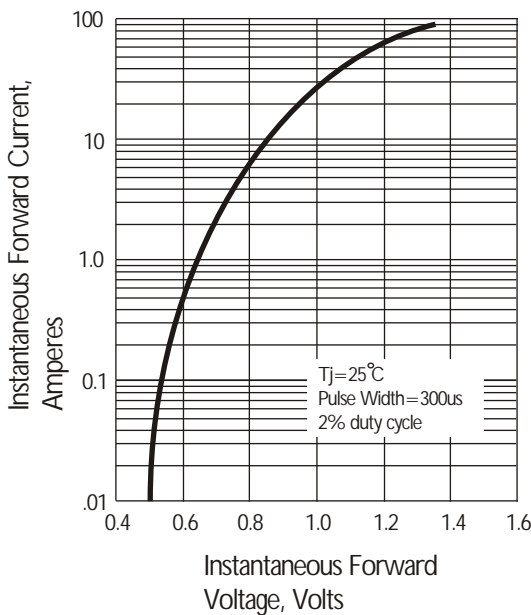
**Fig. 1 Derating Curve for Output Rectified Current**



**Fig. 2 Maximum Non-repetitive Peak Forward Surge Current**



**Fig. 3 Typical Instantaneous Forward Characteristics**



**Fig. 4 Typical Reverse Characteristics at Tj=25°C**

