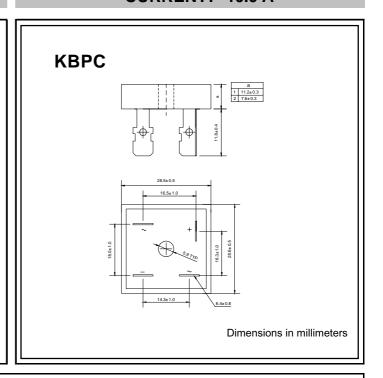
# SILICON BRIDGE RECTIFIERS

VOLTAGE RANGE: 50 --- 1000 V **CURRENT: 10.0 A** 

#### **FEATURES**

- ♦ Surge overload rating to 150 Amperes peak
- plastic technique results in inexpensive product
- ♦ Mounting: thru hole for # 6 screw mounting



#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

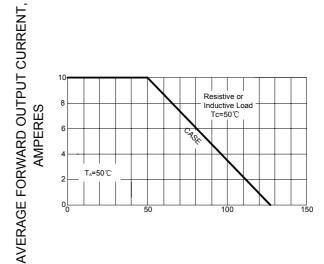
Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate by 20%.

|   |                    | KBPC<br>10005 | KBPC<br>1001 | KBPC<br>1002 | KBPC<br>1004 | KBPC<br>1006 | KBPC<br>1008 | KBPC<br>1010 | UNITS      |
|---|--------------------|---------------|--------------|--------------|--------------|--------------|--------------|--------------|------------|
| Maximum recurrent peak reverse voltage  | $V_{RRM}$          | 50            | 100          | 200          | 400          | 600          | 800          | 1000         | V          |
| Maximum RMS 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 forw ard  Output current @T <sub>A</sub> =50℃                       | I <sub>F(AV)</sub> | 10.0          |              |              |              |              |              | А            |            |
| Peak forw ard surge current 8.3ms single half-sine-w ave superimposed on rated load | I <sub>FSM</sub>   | 150.0         |              |              |              |              |              |              | А          |
| Maximum instantaneous forward voltage  @ 5.0 A                                      | V <sub>F</sub>     | 1.1           |              |              |              |              |              | V            |            |
| Maximum reverse current @T <sub>A</sub> =25℃  |                    | 10.0          |              |              |              |              |              |              | μΑ         |
| at rated DC blocking voltage    @T <sub>A</sub> =100℃                               | I <sub>R</sub>     | 1.0           |              |              |              |              |              |              | mA         |
| Operating junction temperature range  | T <sub>J</sub>     | - 55 + 125    |              |              |              |              |              |              | $^{\circ}$ |
| Storage temperature range   | T <sub>STG</sub>   | - 55 + 150    |              |              |              |              |              |              | $^{\circ}$ |

### FIG.1 - PEAK FORWARD SURGE CURRENT

AMPERES 30 120 8.3ms Single Half Sine Wave T,=125°C 90 10 10 10

#### FIG.2 - FORWARD DERATING CURVE



AMBIENT TEMPERATURE, °C

## FIG.3 - TYPICAL FORWARD CHARACTERISTIC

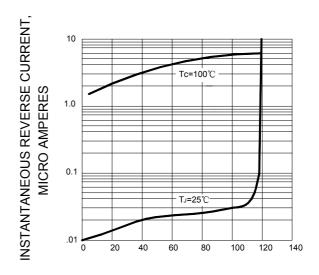
NUMBER OF CYCLES AT 60Hz

# 100 10 10 10 TJ=25°C Pulse Width =300uS 0.1 0.0 0.6 0.8 1.0 1.2 1.4 1.6 1.8 2.0

INSTANTANEOUS FORWARD VOLTAGE, VOLTS

INSTANTANEOUS FORWARD CURRENT,

#### FIG.4 - TYPICAL REVERSE CHARACTERISTIC



PERCENT OF RATED PEAK REVERSE VOLTAGE