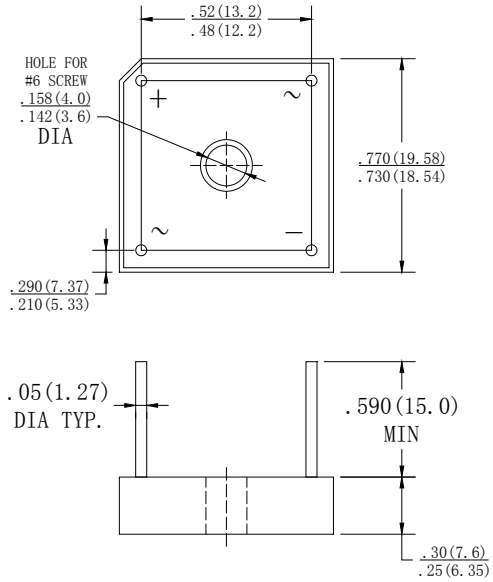
# Taiwan Goodark Technology Co.,Ltd

## BR10005 THRU BR1010

# KBPC8

### Features

- Ideal for printed circuit board
- Reliable low cost construction technique results in inexpensive product
- High temperature soldering guaranteed: 250℃ / 10 seconds / 0.375" ( 9.5mm ) lead length at 5 lbs., ( 2.3 kg ) tension




### Mechanical Data

- Case: Molded plastic
- Lead: solder plated
- Polarity: As marked




Dimensions in inches and (millimeters)

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25℃ ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%

| Type Number | | BR 10005 | BR 1001 | BR 1002 | BR 1004 | BR 1006 | BR 1008 | BR 1010 | UNITS |
|---|---|---|---|---|---|---|---|---|---|
| Maximum Repetitive Peak Reverse Voltage | VRRM | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum RMS 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 Current @$T_C$ = 50℃ | I(AV) | 10 | | | | | | | A |
| Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method ) | $I_{FSM}$ | 200 | | | | | | | A |
| Maximum Instantaneous Forward Voltage @5.0A | $V_F$ | 1.1 | | | | | | | V |
| Maximum DC Reverse Current @ TA=25℃<br>rated DC blocking voltage per leg TA = 100℃ | $I_R$ | 5.0<br>500 | | | | | | | μA |
| Typical Thermal Resistance (Note) | $R\theta_{JC}$ | 2.5 | | | | | | | ℃/W |
| Operating Temperature Range | $T_J$ | -55 to +125 | | | | | | | ℃ |
| Storage Temperature Range | $T_{STG}$ | -55 to +150 | | | | | | | ℃ |

**NOTE:** Thermal Resistance from junction to case with units mounted on a 3.2" x 3.2" x 0.12" (8.2cm.x 8.2cm.x 0.3cm.) Al.-Finned Plate.

FIG.1-MAXIMUM NONO-REPETITIVE FORWARD SURGE CURRENT PER BRIDGE ELELMENT

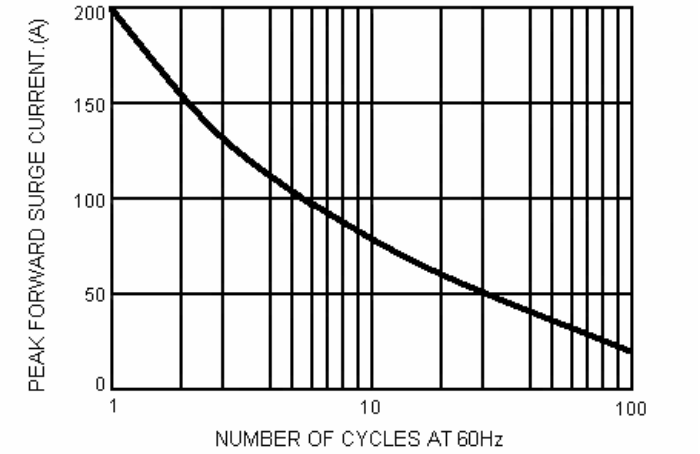



FIG.2-MAXIMUM FORWARD CURRENT DERATING CURVE

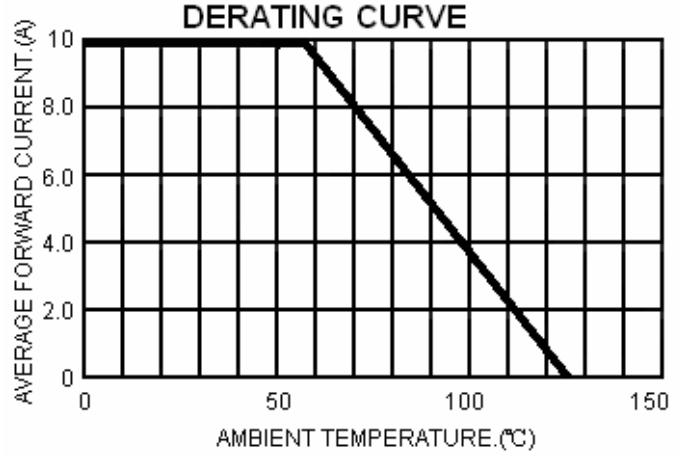



FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

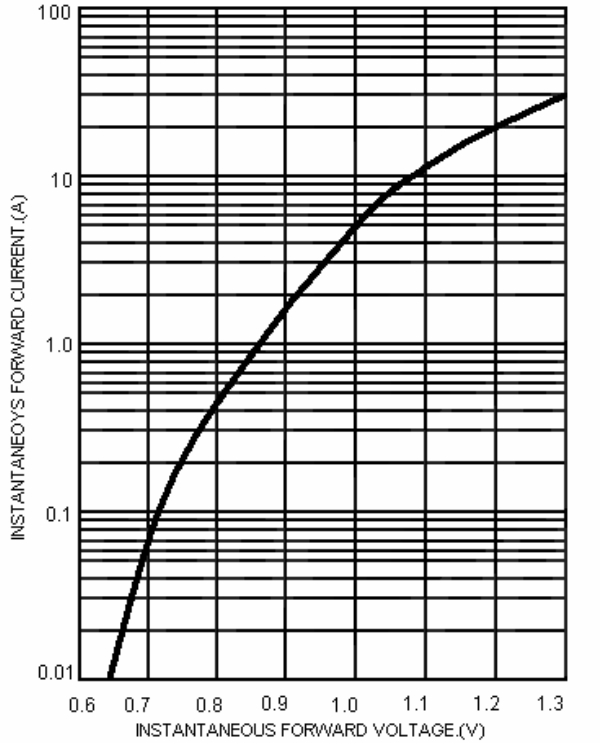



FIG.4-TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT