



# KBPC10,15,25,35 SERIES

## SINGLE-PHASE SILICON BRIDGE

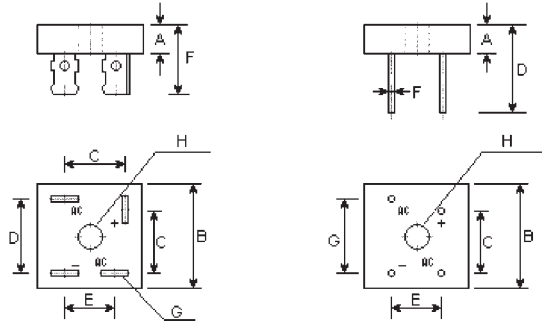
Reverse Voltage - 50 to 1000 Volts

Forward Current - 10.0/15.0/25.0/35.0 Amperes

### Features

- Surge overload 200-400 amperes peak
- Low forward voltage drop
- Mounting position: Any
- Electrically isolated base-1800 volts
- Solderable 0.25" FASTON terminals
- Materials used carries U/L recognition

### KBPC



| DIMENSIONS |                                    |       |       |       |      |
|------------|------------------------------------|-------|-------|-------|------|
| DIM        | inches                             |       | mm    |       | Note |
|            | Min.                               | Max.  | Min.  | Max.  |      |
| A          | 0.432                              | 0.442 | 10.97 | 11.23 |      |
| B          | 1.12                               | 1.13  | 28.4  | 28.7  |      |
| C          | 0.612                              | 0.692 | 15.5  | 17.6  |      |
| D          | 0.672                              | 0.752 | 17.1  | 19.1  |      |
| E          | 0.512                              | 0.590 | 13    | 15    |      |
| F          | -                                  | 1.0   | -     | 25.4  |      |
| H          | HOLE FOR NO.8 SCREW 0.193(4.9) DIA |       |       |       |      |

| DIMENSIONS |                                     |       |       |       |      |
|------------|-------------------------------------|-------|-------|-------|------|
| DIM        | inches                              |       | mm    |       | Note |
|            | Min.                                | Max.  | Min.  | Max.  |      |
| A          | 0.432                               | 0.442 | 10.97 | 11.23 |      |
| B          | 1.12                                | 1.13  | 28.4  | 28.7  |      |
| C          | 0.410                               | 0.490 | 10.4  | 12.4  |      |
| D          | 1.2                                 | -     | 30.5  | -     |      |
| E          | 0.672                               | 0.752 | 17.1  | 19.1  |      |
| F          | 0.04(1.0) DIA Typ.                  |       |       |       |      |
| G          | 0.672                               | 0.752 | 17.1  | 19.1  |      |
| H          | HOLE FOR NO. 8 SCREW 0.193(4.9) DIA |       |       |       |      |

### Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified. Resistive or inductive load 60Hz

For capacitive load, derate current by 20%.

|                                                                                            | Symbols    | KBPC10005<br>KBPC15005<br>KBPC25005<br>KBPC35005        | KBPC1001<br>KBPC1501<br>KBPC2501<br>KBPC3501 | KBPC1002<br>KBPC1502<br>KBPC2502<br>KBPC3502 | KBPC1004<br>KBPC1504<br>KBPC2504<br>KBPC3504 | KBPC1006<br>KBPC1506<br>KBPC2506<br>KBPC3506 | KBPC1008<br>KBPC1508<br>KBPC2508<br>KBPC3508 | KBPC1010<br>KBPC1510<br>KBPC2510<br>KBPC3510 | Units            |
|--------------------------------------------------------------------------------------------|------------|---------------------------------------------------------|----------------------------------------------|----------------------------------------------|----------------------------------------------|----------------------------------------------|----------------------------------------------|----------------------------------------------|------------------|
| Maximum repetitive peak reverse voltage                                                    | $V_{RRM}$  | 50                                                      | 100                                          | 200                                          | 400                                          | 600                                          | 800                                          | 1000                                         | Volts            |
| Maximum RMS bridge input voltage                                                           | $V_{RMS}$  | 35                                                      | 70                                           | 140                                          | 280                                          | 420                                          | 560                                          | 700                                          | Volts            |
| Maximum average forward rectified output current at $T_c=55^\circ\text{C}$                 | $I_{(AV)}$ | KBPC10: 10.0 KBPC15: 15.0 KBPC25: 25.0 KBPC35: 35.0     |                                              |                                              |                                              |                                              |                                              |                                              | Amps             |
| Peak forward surge current, 8.3mS single half sine-wave superimposed on rated load         | $I_{FSM}$  | KBPC10: 200.0 KBPC15: 300.0 KBPC25: 300.0 KBPC35: 400.0 |                                              |                                              |                                              |                                              |                                              |                                              | Amps             |
| Maximum forward Voltage drop per element at 5.0/7.5/12.5/17.5A peak                        | $V_F$      | 1.2                                                     |                                              |                                              |                                              |                                              |                                              |                                              | Volts            |
| Maximum DC reverse current at rated DC blocking voltage per element $T_A=25^\circ\text{C}$ | $I_R$      | 10.0                                                    |                                              |                                              |                                              |                                              |                                              |                                              | $\mu\text{A}$    |
| Operating temperature range                                                                | $T_J$      | -55 to +125                                             |                                              |                                              |                                              |                                              |                                              |                                              | $^\circ\text{C}$ |
| Storage temperature range                                                                  | $T_{STG}$  | -55 to +150                                             |                                              |                                              |                                              |                                              |                                              |                                              | $^\circ\text{C}$ |

Note:

(1) Also available on KBPC10W / 15W / 25W / 35W series

## RATINGS AND CHARACTERISTIC CURVES

Fig. 1 — MAXIMUM FORWARD SURGE CURRENT

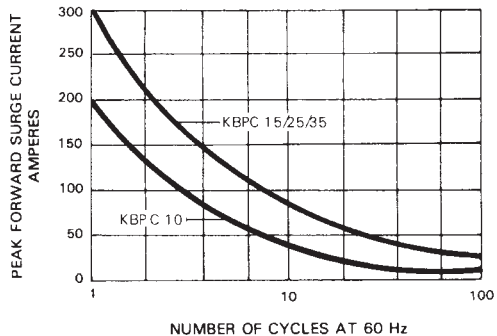


Fig. 2 — DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

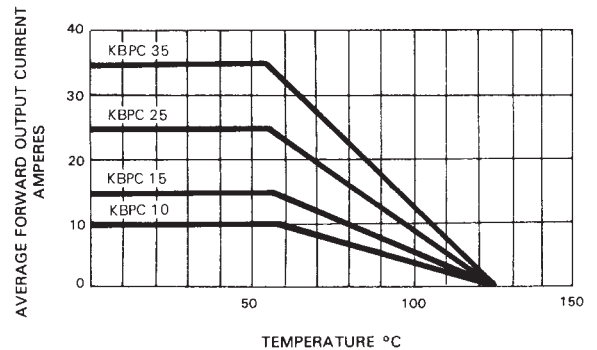


Fig. 3 — TYPICAL FORWARD CHARACTERISTICS

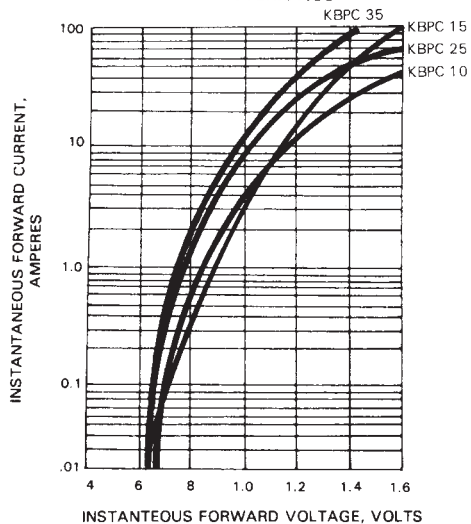
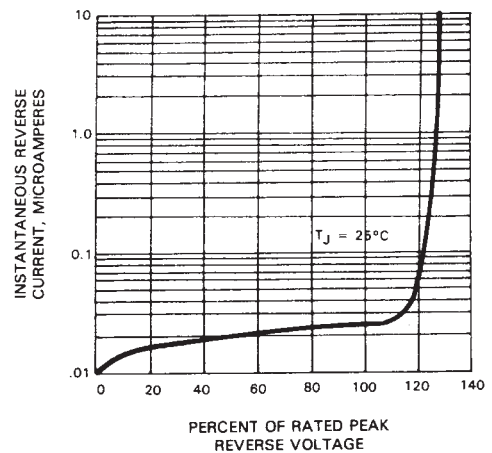


Fig. 4 — TYPICAL REVERSE CHARACTERISTICS



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