

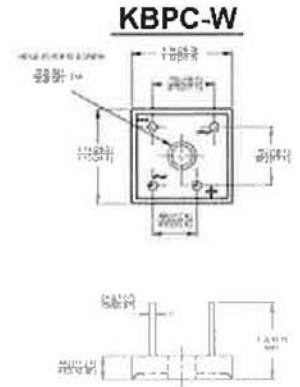
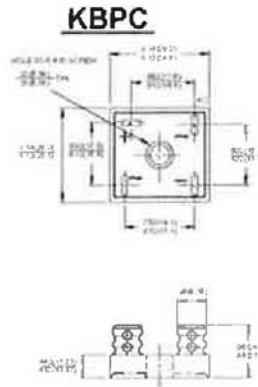


# KBPC10/15/25/35/50 Series

Glass Passivated Single-Phase Bridge Rectifiers  
Voltage Range 50 to 1000 Volts Forward Current 10/15/25/35/50 Amperes

## Features

- ◆ Surge overload rating - 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



Dimensions in inches and (millimeters)

## Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.  
Single phase, half wave, 60 Hz, resistive or inductive load.  
For capacitive load, derate current by 20%

| Parameter   | Symbols     | KBPC                     | KBPC                     | KBPC                      | KBPC                      | KBPC                      | KBPC        | KBPC | Units            |
|---|-------------|--------------------------|--------------------------|---------------------------|---------------------------|---------------------------|-------------|------|------------------|
|   |             | 10005                    | 1001                     | 1002                      | 1004                      | 1006                      | 1008        | 1010 |                  |
| Maximum recurrent peak reverse voltage  | $V_{RRM}$   | 50                       | 100                      | 200                       | 400                       | 600                       | 800         | 1000 | Volts            |
| Maximum RMS voltage   | $V_{RMS}$   | 35                       | 70                       | 140                       | 280                       | 420                       | 560         | 700  | Volts            |
| Maximum DC blocking voltage   | $V_{DC}$    | 50                       | 100                      | 200                       | 400                       | 600                       | 800         | 1000 | Volts            |
| Maximum average forward rectified current at $T_c=55^\circ\text{C}$                               | $I_{F(AV)}$ | KBPC10                   | KBPC15                   | KBPC25                    | KBPC35                    | KBPC50                    |             |      | Amps             |
|   |             |                          |                          |                           |                           |                           | 10.0        |      |                  |
|   |             |                          |                          |                           |                           |                           | 15.0        |      |                  |
|   |             |                          |                          |                           |                           |                           | 25.0        |      |                  |
|   |             |                          |                          |                           |                           |                           | 35.0        |      |                  |
|   |             |                          |                          |                           |                           |                           | 50.0        |      |                  |
| Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) | $I_{FSM}$   | KBPC10                   | KBPC15                   | KBPC25                    | KBPC35                    | KBPC50                    |             |      | Amps             |
|   |             |                          |                          |                           |                           |                           | 200.0       |      |                  |
|   |             |                          |                          |                           |                           |                           | 300.0       |      |                  |
|   |             |                          |                          |                           |                           |                           | 300.0       |      |                  |
|   |             |                          |                          |                           |                           |                           | 400.0       |      |                  |
|   |             |                          |                          |                           |                           |                           | 400.0       |      |                  |
| Max. instantaneous forward voltage drop per element at  | $V_F$       | KBPC10 $I_F=5.0\text{A}$ | KBPC15 $I_F=7.5\text{A}$ | KBPC25 $I_F=12.5\text{A}$ | KBPC35 $I_F=17.5\text{A}$ | KBPC50 $I_F=25.0\text{A}$ | 1.2         |      | Volts            |
| Maximum DC reverse current at rated DC blocking voltage per element                               | $I_R$       | $T_A=25^\circ\text{C}$   |                          |                           |                           |                           | 10.0        |      | $\mu\text{A}$    |
|   |             | $T_A=125^\circ\text{C}$  |                          |                           |                           |                           | 500         |      |                  |
| Operating temperature range   | $T_J$       |                          |                          |                           |                           |                           | -55 to +125 |      | $^\circ\text{C}$ |
| Storage temperature range   | $T_{STG}$   |                          |                          |                           |                           |                           | -55 to +150 |      | $^\circ\text{C}$ |

Notes: Also available on KBPC10W/15W/25W/35W/50W series



## RATINGS AND CHARACTERISTIC CURVES

( $T_A = 25^\circ\text{C}$  unless otherwise noted)

FIG. 1 - MAXIMUM FORWARD SURGE CURRENT

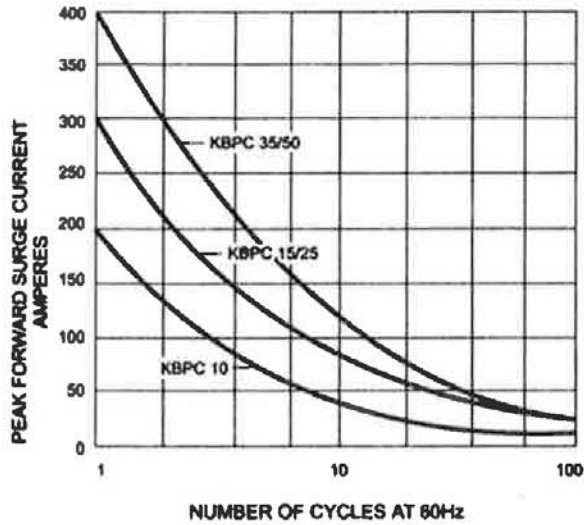


FIG. 2 - DERATING CURVE  
OUTPUT RECTIFIED CURRENT

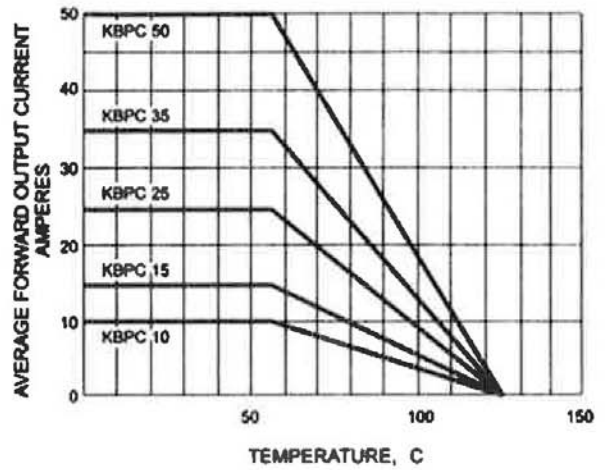


FIG. 3 - TYPICAL FORWARD  
CHARACTERISTICS

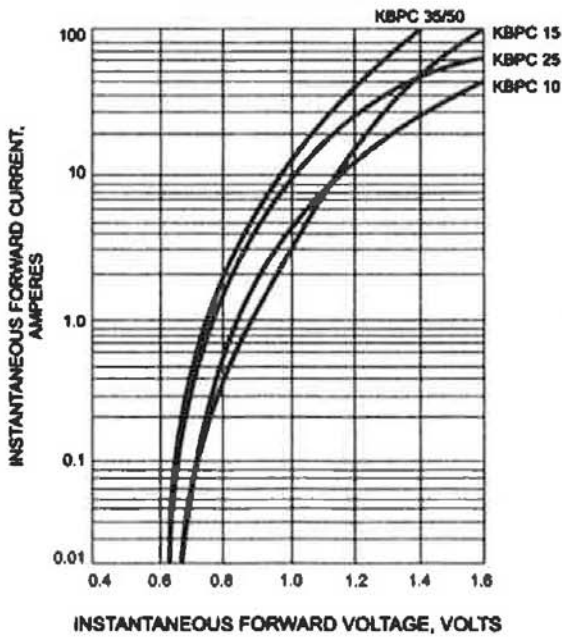


FIG. 4 - TYPICAL REVERSE  
CHARACTERISTICS

