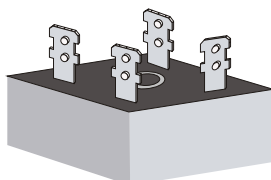


## FEATURES

- \* Superior thermal design
- \* 400 amperes surge capability
- \* Mounting: Hole thru for #8 screw
- \* 1/4" universal faston terminal

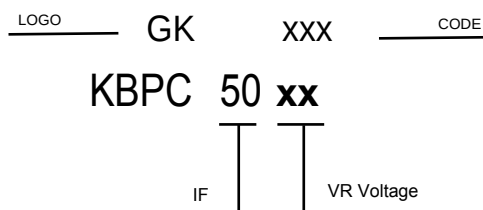
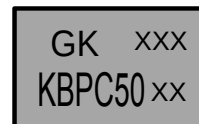


## VOLTAGE RANGE

50 to 1000 Volts

## CURRENT

50.0 Ampere



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

| TYPE NUMBER                                                                                        | KBPC50005  | KBPC5001 | KBPC5002 | KBPC5004 | KBPC5006 | KBPC5008 | KBPC5010 | UNITS |
|----------------------------------------------------------------------------------------------------|------------|----------|----------|----------|----------|----------|----------|-------|
| Maximum Recurrent Peak Reverse Voltage                                                             | 50         | 100      | 200      | 400      | 600      | 800      | 1000     | V     |
| Maximum RMS Voltage                                                                                | 35         | 70       | 140      | 280      | 420      | 560      | 700      | V     |
| Maximum DC Blocking Voltage                                                                        | 50         | 100      | 200      | 400      | 600      | 800      | 1000     | V     |
| Maximum Average Forward Rectified Current                                                          | 50.0       |          |          |          |          |          |          | A     |
| Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) | 450        |          |          |          |          |          |          | A     |
| Maximum Forward Voltage Drop per Bridge Element at 25A D.C.                                        | 1.2        |          |          |          |          |          |          | V     |
| Maximum DC Reverse Current Ta=25°C                                                                 | 10         |          |          |          |          |          |          | A     |
| at Rated DC Blocking Voltage Ta=100°C                                                              | 100        |          |          |          |          |          |          | A     |
| Operating Temperature Range, Tj                                                                    | -65 — +150 |          |          |          |          |          |          | °C    |
| Storage Temperature Range, Tstg                                                                    | -65 — +150 |          |          |          |          |          |          | °C    |

## RATING AND CHARACTERISTIC CURVES

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

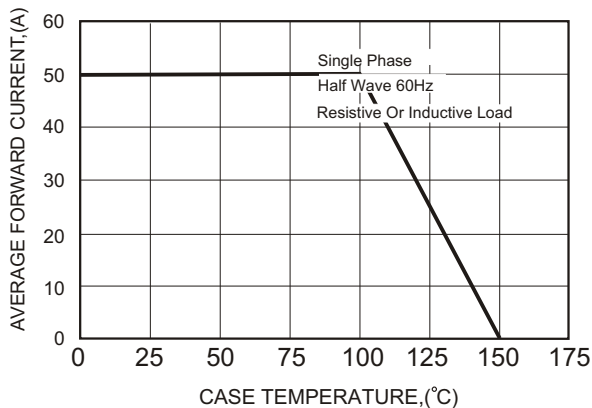


FIG.2-TYPICAL FORWARD CHARACTERISTICS

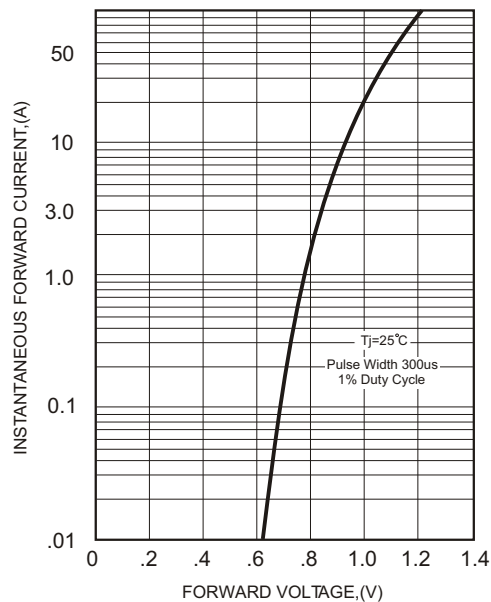


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

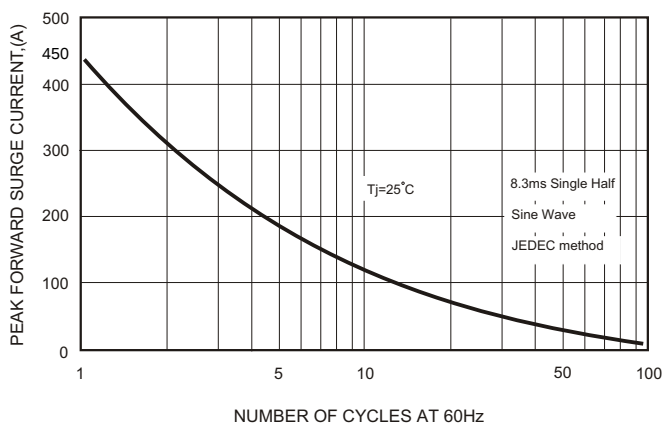
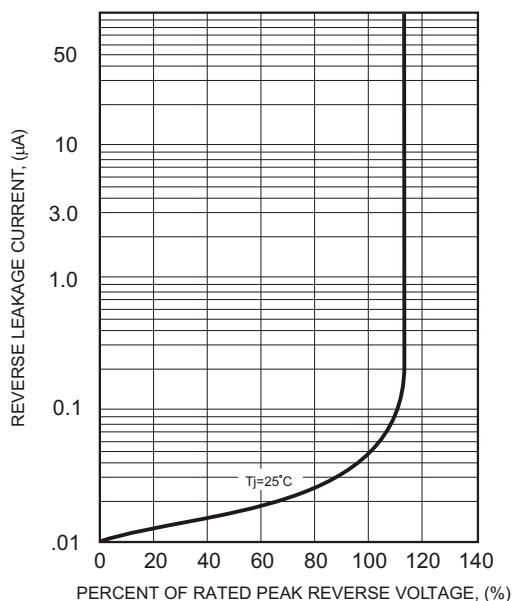
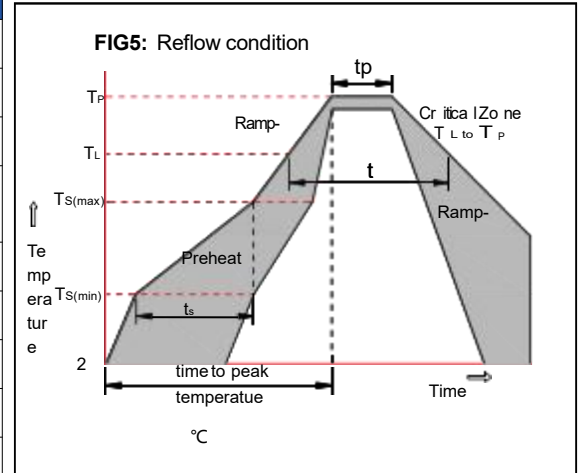


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

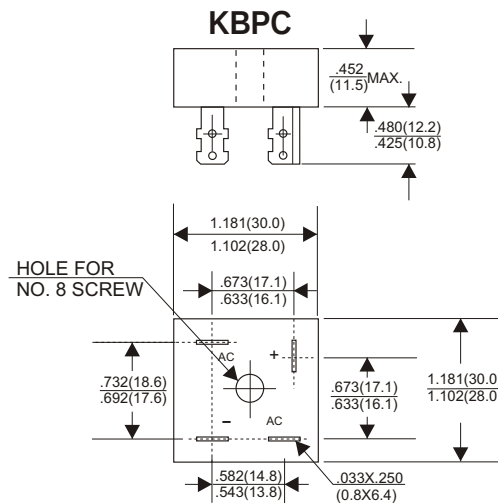


## Soldering parameters

| Reflow Condition                                        |                                   | Pb-Free assembly<br>(see as below) |
|---------------------------------------------------------|-----------------------------------|------------------------------------|
| Pre Heat                                                | -Temperature Min ( $T_{s(min)}$ ) | +150 °C                            |
|                                                         | -Temperature Max( $T_{s(max)}$ )  | +200 °C                            |
|                                                         | -Time (Min to Max) (ts)           | 60-180 secs.                       |
| Average ramp up rate (Liquid us Temp ( $T_L$ ) to peak) |                                   | 3 °C/sec. Max                      |
| $T_{s(max)}$ to $T_L$ - Ramp-up Rate                    |                                   | 3 °C/sec. Max                      |
| Reflow                                                  | -Temperature( $T_L$ )(Liquid us)  | +217 °C                            |
|                                                         | -Temperature( $t_L$ )             | 60-150 secs.                       |
| Peak Temp ( $T_P$ )                                     |                                   | +260(+0/-5) °C                     |
| Time within 5 °C of actual Peak Temp ( $t_P$ )          |                                   | 30 secs. Max                       |
| Ramp-down Rate                                          |                                   | 6 °C/sec. Max                      |
| Time 25 °C to Peak Temp ( $T_P$ )                       |                                   | 8 min. Max                         |
| Do not exceed                                           |                                   | +260 °C                            |



## Package Dimensions & Suggested Pad Layout



Dimensions in inches and (millimeters)