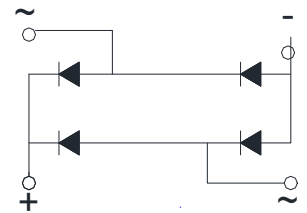
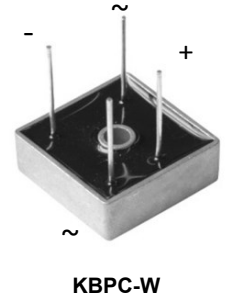
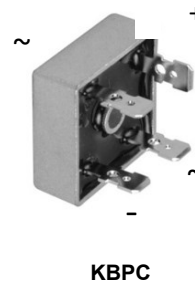


KBPC35 Series

Glass Passivated Single-Phase Bridge Rectifiers
 Voltage Range 50 to 1000V Forward Current 35A

Features

- Surge overload rating - 200~400A peak
- High surge current capability
- Low thermal resistance
- Low forward voltage drop
- Mounting position: Any
- Electrically isolated base - 1800V
- Solderable 0.25" FASTON terminals
- Solder dip 275 °C max. 7 s, per JESD 22-B106
- Terminals: Tin plated leads,
 Solderable per J-STD-002 and JESD22-B102,
 Suffix letter "W" added to indicate wire leads(e.g. KBPC3510W)



Schematic Diagram

Maximum Ratings and Electrical Characteristics

$T_A=25^{\circ}\text{C}$ Unless otherwise specified

| Parameter | Symbol | KBPC | KBPC | KBPC | KBPC | KBPC | KBPC | KBPC | Unit |
|---|------------------|----------------|---------------|---------------|---------------|---------------|---------------|---------------|-----------------------------|
| | | 35005 | 3501 | 3502 | 3504 | 3506 | 3508 | 3510 | |
| | | KBPC 35005W | KBPC 3501W | KBPC 3502W | KBPC 3504W | KBPC 3506W | KBPC 3508W | KBPC 3510W | |
| Repetitive Peak Reverse Voltage | V_{RRM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum Instantaneous Forward Voltage Drop per Diode ($I_{FM}=17.5\text{A}$) | V_{FM} | 1.1 | | | | | | | V |
| Maximum DC Reverse Current at Rated DC Blocking Voltage per Diode ($V_{RM}=V_{RRM}$) | I_{RRM} | 10 | | | | | | | μA |
| Average Rectified Output Current @60Hz Sine Wave, R-load, With Heatsink, $T_c=55^{\circ}\text{C}$ | I_O | 35 | | | | | | | A |
| Surge(Non-repetitive) Forward Current @60Hz Half- sine Wave, 1 cycle, $T_A=25^{\circ}\text{C}$ | I_{FSM} | 400 | | | | | | | A |
| Current Squared Time @ $1\text{ms}\leq t\leq 8.3\text{ms}$ $T_J=25^{\circ}\text{C}$, Rating of Per Diode | I^2t | 660 | | | | | | | A^2S |
| Storage Temperature | T_{STG} | -55 to +150 | | | | | | | $^{\circ}\text{C}$ |
| Junction Temperature | T_J | -55 to +150 | | | | | | | $^{\circ}\text{C}$ |
| Dielectric Strength, Terminals to Case, AC 1 minute | V_{dis} | 2.5 | | | | | | | KV |
| Thermal Resistance, Between Junction and Case, With Heatsink | $R_{\theta J-C}$ | 1.6 | | | | | | | $^{\circ}\text{C}/\text{W}$ |

Ratings and Characteristics Curves

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

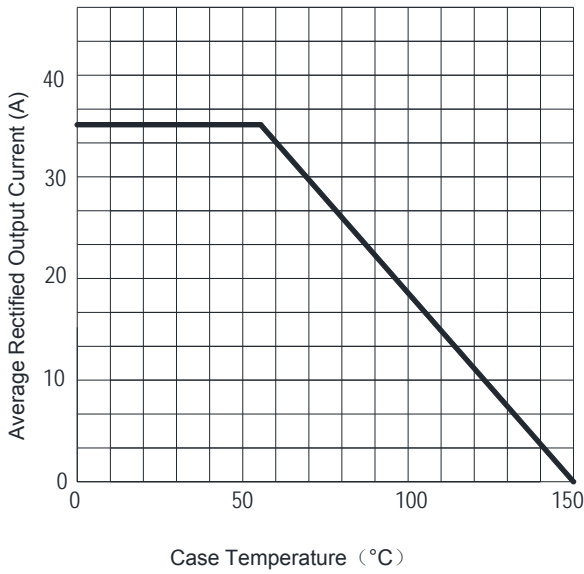


Figure 1. I_o - T_c Curve

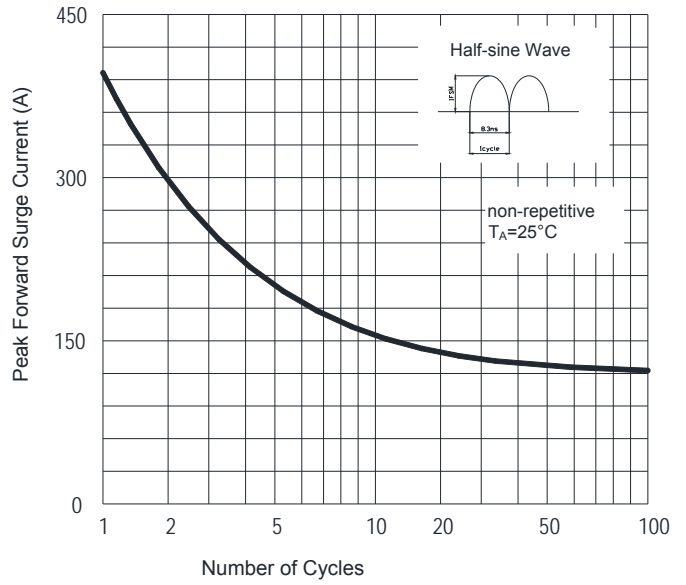


Figure 2. Surge Forward Current Capability

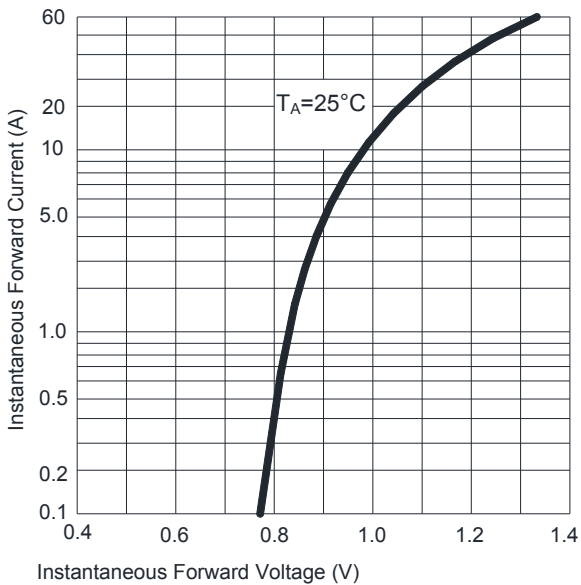


Figure 3. Instantaneous Forward Voltage

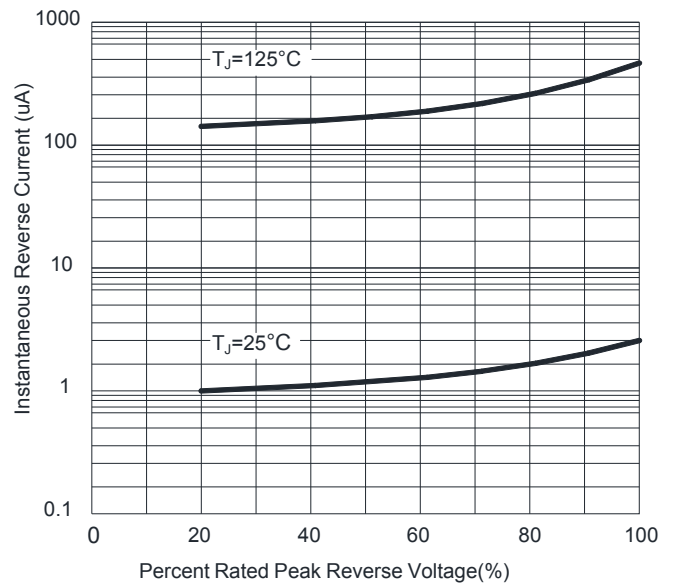
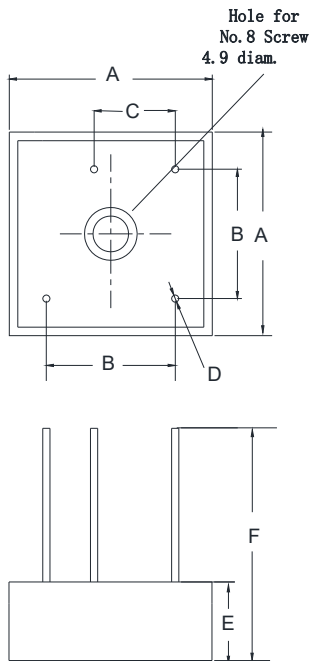


Figure 4. Typical Reverse Characteristics

Package Outline Dimensions

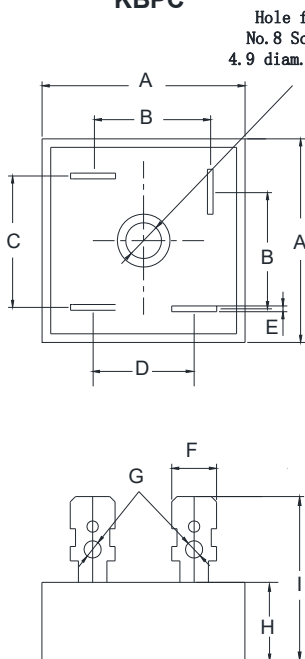
KBPC-W



| KBPC-W | | |
|--------|------|------|
| Dim | Min | Max |
| A | 28.2 | 28.8 |
| B | 17.1 | 19.1 |
| C | 10.4 | 12.4 |
| D | 0.95 | 1.05 |
| E | 10.8 | 11.2 |
| F | 30 | |

Dimensions in millimeters

KBPC



| KBPC | | |
|------|------|------|
| Dim | Min | Max |
| A | 28.2 | 28.8 |
| B | 15.3 | 17.3 |
| C | 17.1 | 19.1 |
| D | 13.2 | 15.2 |
| E | 0.75 | 0.85 |
| F | 6.2 | 6.4 |
| G | 2.3 | 2.6 |
| H | 10.8 | 11.2 |
| I | 19 | |

Dimensions in millimeters