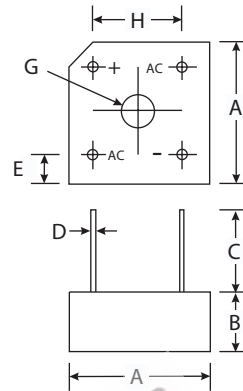


KBPC3005 THRU KBPC310

CURRENT 3.0 Amperes
VOLTAGE 50 to 1000 Volts

Features

- High Current Capability
- Surge Overload Rating to 50A Peak
- High Case Dielectric Strength of 1500V
- Ideal for Printed Circuit Board Application
- Plastic Material - UL Flammability Classification 94V-0



| KBPC-3 | | |
|----------------------|----------------------------|-------|
| Dim | Min | Max |
| A | 14.73 | 15.75 |
| B | 5.84 | 6.86 |
| C | 19.00 | — |
| D | 0.76 \varnothing Typical | |
| E | 1.70 | 3.20 |
| G | Hole for #6 screw | |
| | 3.60 | 4.00 |
| H | 10.30 | 11.30 |
| All Dimensions in mm | | |

Mechanical Data

- Case : Molded Plastic
- Terminals : Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity : Marked on Body
- Mounting : Through Hole for #6 Screw
- Mounting Torque : 5.0 Inch-pounds Maximum
- Weight : 3.8 grams (approx.)
- Marking : Type Number

Maximum Ratings And Electrical Characteristics

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

| | Symbols | KBPC 3005 | KBPC 301 | KBPC 302 | KBPC 304 | KBPC 306 | KBPC 308 | KBPC 310 | Units |
|--|---------------------------------|-------------|----------|----------|----------|----------|----------|----------|------------------|
| Peak Repetitive Reverse voltage Working Peak Reverse voltage DC Blocking voltage | V_{RMM} V_{RWM} V_R | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | Volts |
| RMS Reverse voltage | $V_{R(RMS)}$ | 35 | 70 | 140 | 280 | 420 | 560 | 700 | Volts |
| Average Rectified Output Current (Note 1) (Note 2) | I_o | 3.0 2.0 | | | | | | | Amps |
| Non-Repetitive Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method) | I_{FSM} | 50 | | | | | | | Amps |
| Forward voltage (per element) @ $I_F=1.5 A$ | V_{FM} | 1.2 | | | | | | | Volts |
| Peak Reverse Current at Rated DC Blocking voltage (per element) @ $T_C=25^\circ C$ @ $T_C=100^\circ C$ | I_R | 10 1.0 | | | | | | | μA mA |
| I^2t Rating for Fusing ($t < 8.3ms$) (Note 3) | I^2t | 10 | | | | | | | A ² s |
| Typical Junction Capacitance (Note 4) | C_j | 55 | | | | | | | pF |
| Typical Thermal Resistance, Junction to Case (per element) | $R_{\theta JA}$ | 25 | | | | | | | °C/W |
| Operating and Storage Temperature Range | T_j T_{STG} | -65 to +125 | | | | | | | °C |

Notes:

- (1) Mounted on metal chassis.
- (2) Mounted on PC board FR-4 material.
- (3) Non-repetitive, for $t > 1.0ms$ and $< 8.3ms$.
- (4) Measured at 1.0 MHz and applied reverse voltage of 4.0V DC.

RATINGS AND CHARACTERISTIC CURVES KBPC3005 THRU KBPC310

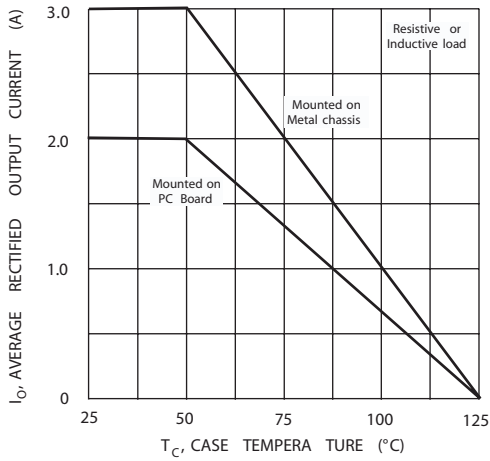


Fig. 1 Forward Current Derating Curve

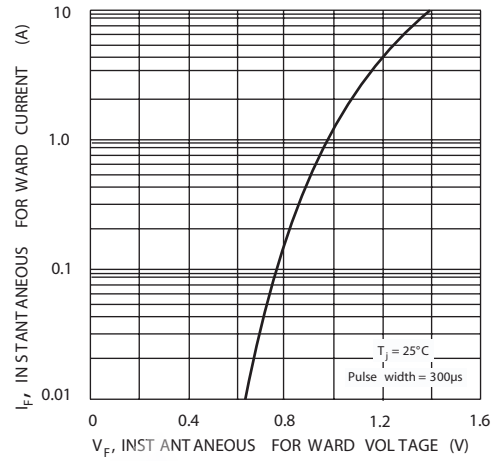


Fig. 2 Typical Forward Characteristics

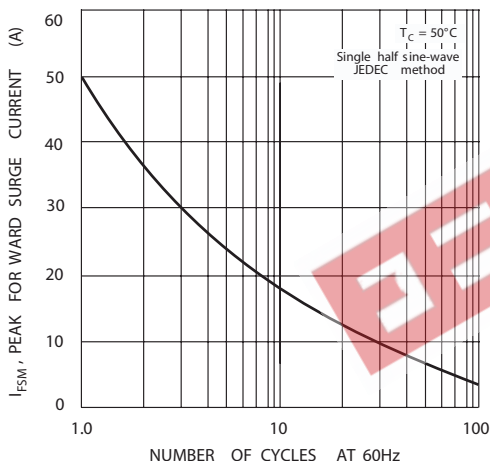


Fig. 3 Peak Forward Surge Current

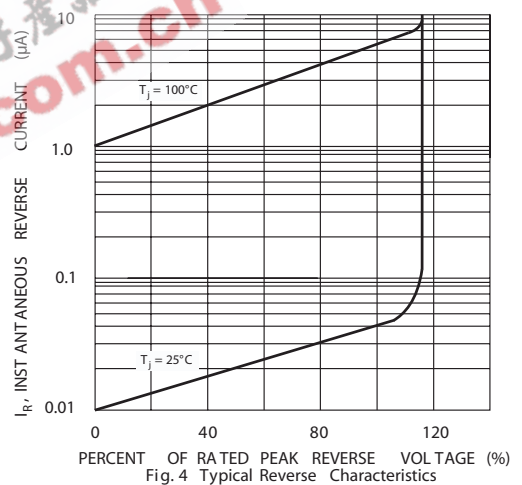


Fig. 4 Typical Reverse Characteristics