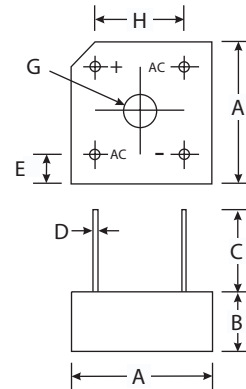


## KBPC3005 THRU KBPC310

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							$\mu A$ mA
$I^2t$ Rating for Fusing ( $t < 8.3ms$ ) (Note 3)	$I^2t$	10							$A^2s$
Typical Junction Capacitance (Note 4)	$C_j$	55							pF
Typical Thermal Resistance, Junction to Case (per element)	$R_{\theta JA}$	25							$^\circ C/W$
Operating and Storage Temperature Range	$T_j$ $T_{STG}$	-65 to +125							$^\circ C$

#### 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

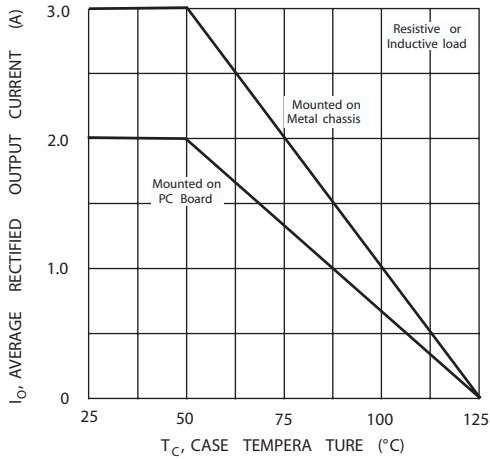


Fig. 1 Forward Current Derating Curve

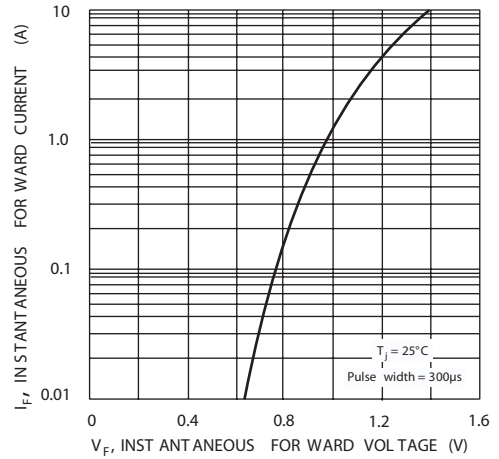


Fig. 2 Typical Forward Characteristics

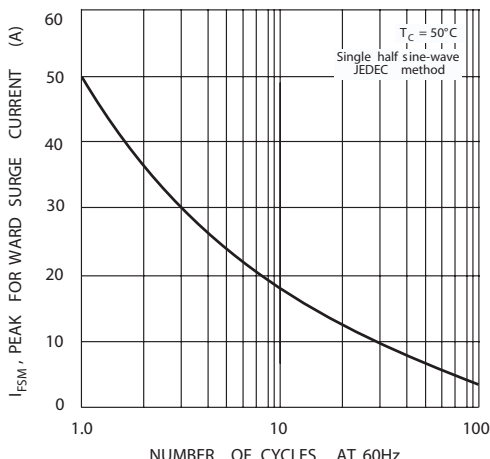


Fig. 3 Peak Forward Surge Current

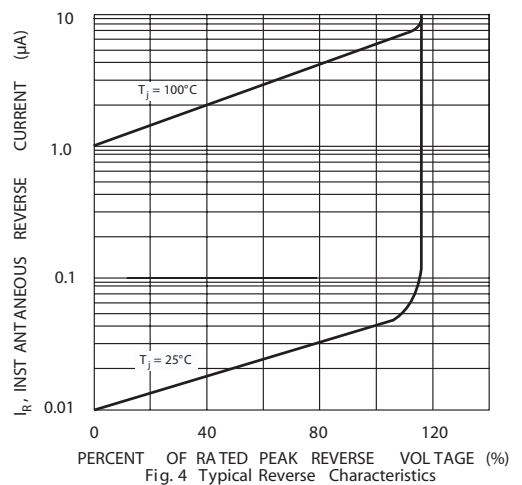


Fig. 4 Typical Reverse Characteristics