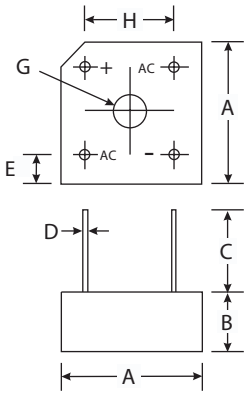
KBPC3005 THRU KBPC310

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 ϕ 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℃ 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) @ T_C=50℃	I_O	3.0							Amps
Average Rectified Output Current (Note 2) @ T_C=50℃		2.0							
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℃	I_R	10							μ A
@ T_C=100℃		1.0							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							℃/W
Operating and Storage Temperature Range	T_j T_{STG}	-65 to +125							℃

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

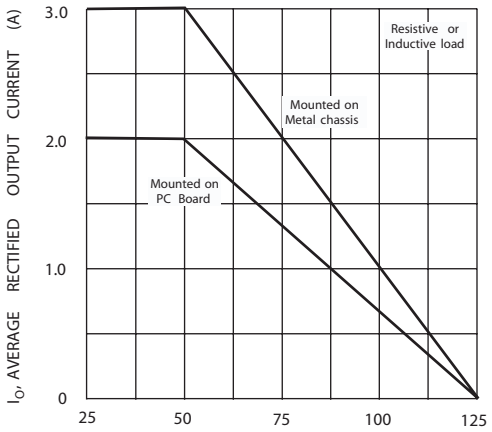


Fig. 1 Forward Current Derating Curve

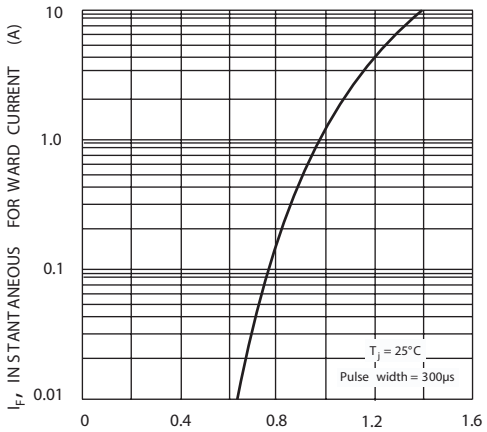


Fig. 2 Typical Forward Characteristics

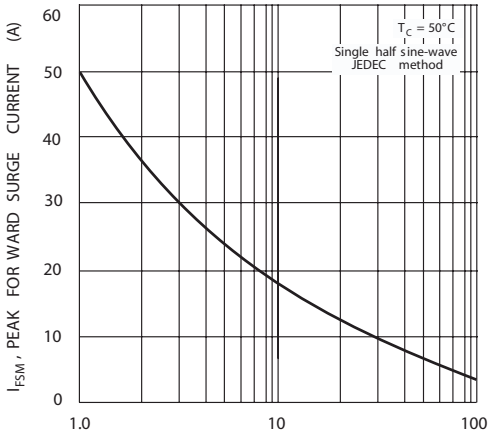


Fig. 3 Peak Forward Surge Current

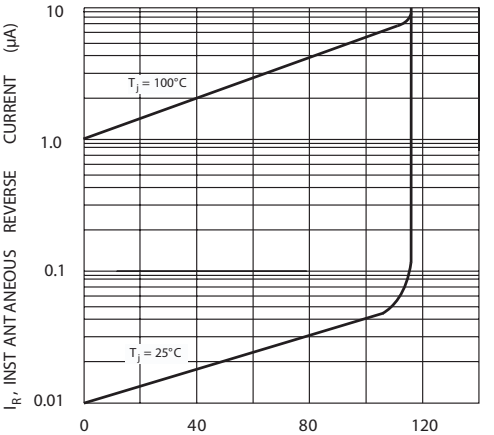


Fig. 4 Typical Reverse Characteristics