

# KBPC300 THRU KBPC310

## 3A BRIDGE RECTIFIERS

Reverse Voltage – 50 to 1000 V

Forward Current – 3 A

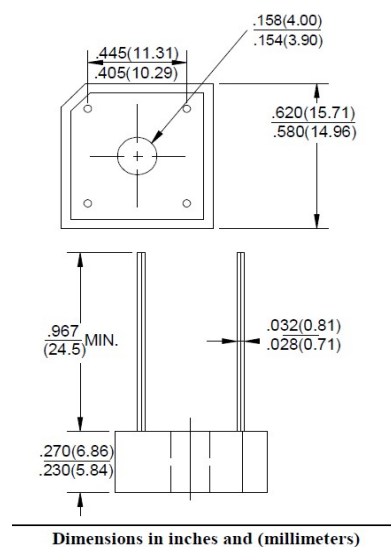
KBPC

### Features

- Diffused junction
- High current capability
- High case dielectric strength
- High surge current capability
- Ideal for printed circuit board application
- Plastic material has underwriters laboratory flammability classification 94V-0

### Mechanical Data

- Case: Molded Plastic
- Terminals: Plated leads solderable per MIL-STD-202, Method 208
- Polarity: Marked on body



### Absolute Maximum Ratings and Characteristics

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

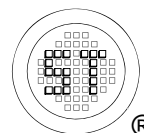
Parameter	Symbols	KBPC 300	KBPC 301	KBPC 302	KBPC 304	KBPC 306	KBPC 308	KBPC 310	Units
Maximum repetitive peak reverse voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Average rectified output current (note1)at $T_C = 50^\circ\text{C}$	$I_o$	3.0							A
Non-repetitive Peak forward surge current 8.3ms single half sine wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	50							A
Maximum instantaneous forward voltage drop per leg at 1.5A	$V_F$	1.2							V
Maximum DC reverse current at rated DC blocking voltage per leg $T_C = 25^\circ\text{C}$ $T_C = 100^\circ\text{C}$	$I_R$	10 1.0							$\mu\text{A}$ mA
Rating for fusing ( $t < 8.3\text{ms}$ )(note 2)	$I^2t$	10							$\text{A}^2\text{s}$
Typical junction capacitance(note3)	$C_j$	55							pF
Typical thermal resistance per leg (note 4)	$R_{\theta JC}$	25							K/W
Operating junction and storage temperature range	$T_J, T_{Stg}$	-55 to +125							$^\circ\text{C}$

Notes: 1. Mounted on metal chassis

2. Non-repetitive, for  $t > 1\text{ms}$  and  $< 8.3\text{ms}$

3. Measured at 1.0MHz and applied reverse voltage of 4.0 V.DC

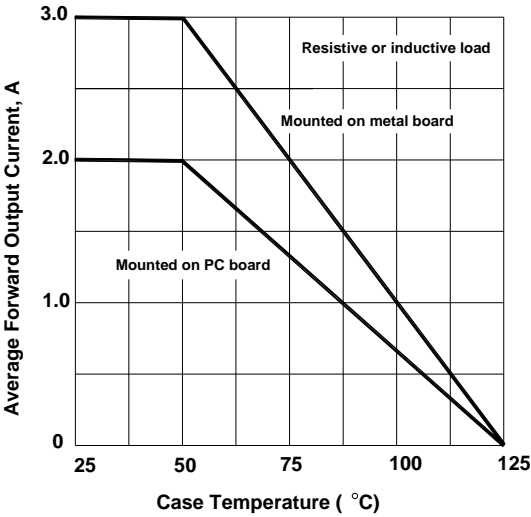
4. Thermal resistance junction to case per element



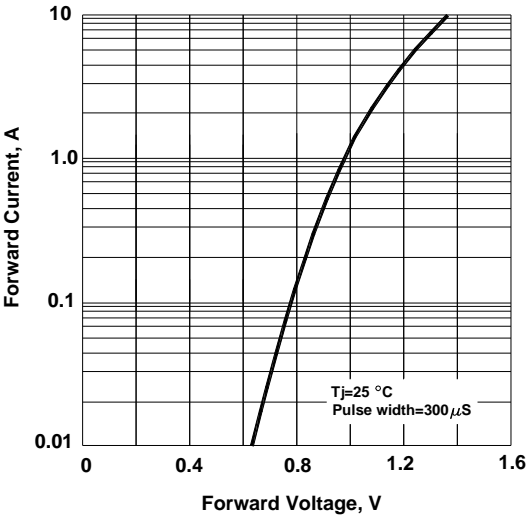
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## Electrical Characteristics Curves

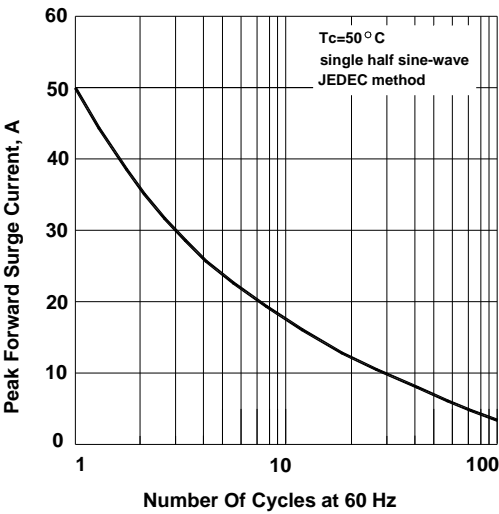
Forward Current Derating Curve



Typical Forward Characteristics, per element



Max Non-repetitive Peak Forward Surge Current



Typical Reverse Characteristics, per element

