



KBPC3005 THRU KBPC310

SINGLE PHASE SILICON BRIDGE RECTIFIER

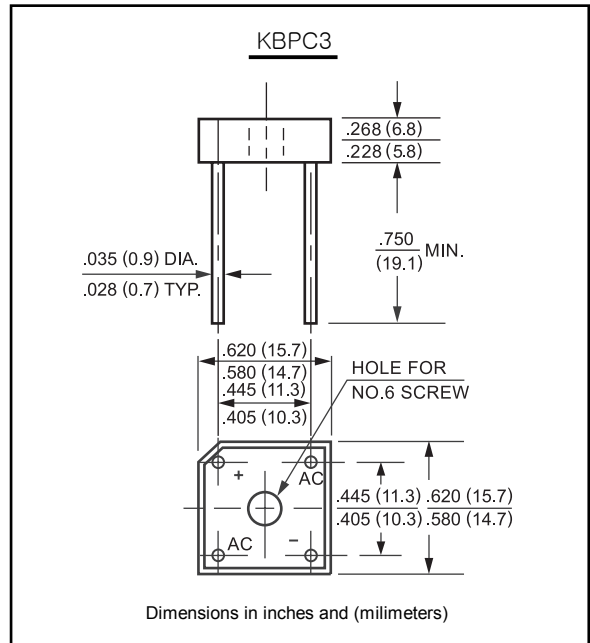
Reverse Voltage - 50 to 1000 Volts Forward Current - 3.0 Ampere

FEATURES

- Diffused Junction
- Surge overload rating: 50A peak

MECHANICAL DATA

- Case: UL-94 Class V-0 recognized Flame Retardant Epoxy
- Terminals: Plated leads solderable per MIL-STD 202, method 208
- Mounting Position: Any
- 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 current derate by 20%.

Characteristic	Symbol	KBPC 3005	KBPC 301	KBPC 302	KBPC 304	KBPC 306	KBPC 308	KBPC 310	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V _{RRM} V _{RWM} V _R	50	100	200	400	600	800	1000	V
RMS Reverse Voltage	V _{R(RMS)}	35	70	140	280	420	560	700	V
Average Rectified Output Current (Note 1) @T _C = 50°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
Forward Voltage per leg @I _F = 1.5A	V _{FM}	1.1							V
Peak Reverse Current @T _A = 25°C At Rated DC Blocking Voltage @T _A = 125°C	I _R	5.0 500							μA
I ² t Rating for Fusing (t<8.3ms) (Note 2)	I ² _t	10							A ² s
Typical Junction Capacitance (Note 3)	C _j	25							pF
Typical Thermal Resistance per leg (Note 1)	R _{θJC}	10							°C/W
Operating and Storage Temperature Range	T _J , T _{STG}	-65 to +125							°C

Note: 1. Mounted on metal chassis.
2. Non-repetitive, for t > 1ms and < 8.3ms.
3. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.



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RATINGS AND CHARACTERISTIC CURVES

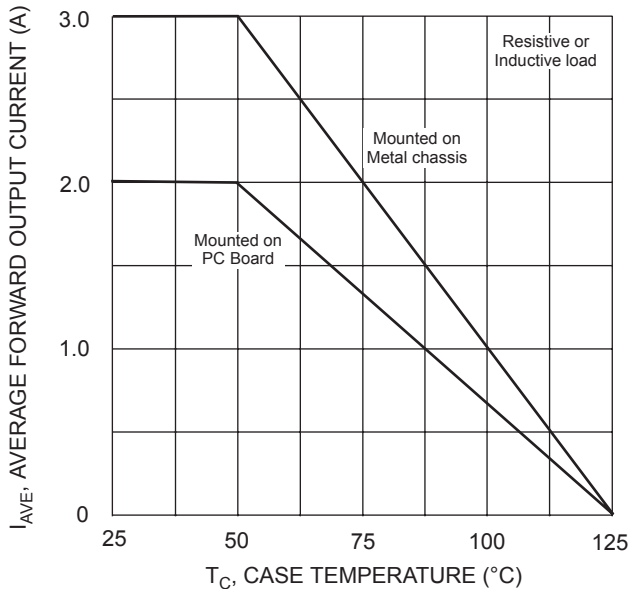


Fig. 1 Forward Current Derating Curve

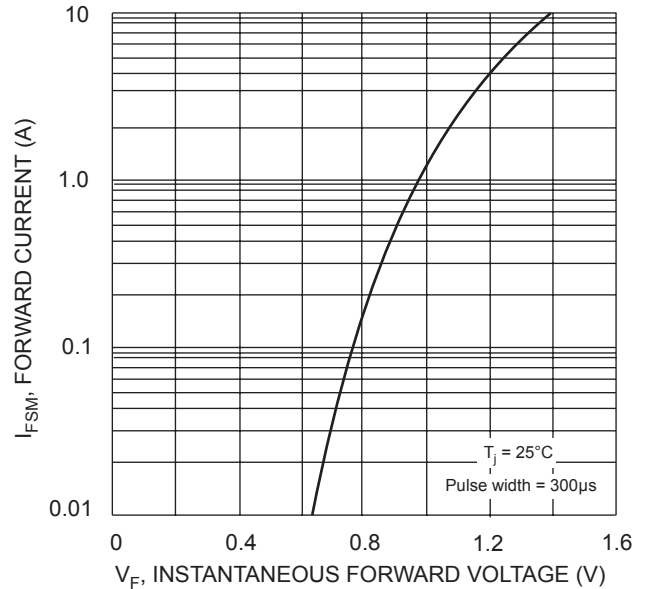


Fig. 2 Typical Forward Characteristics, per element

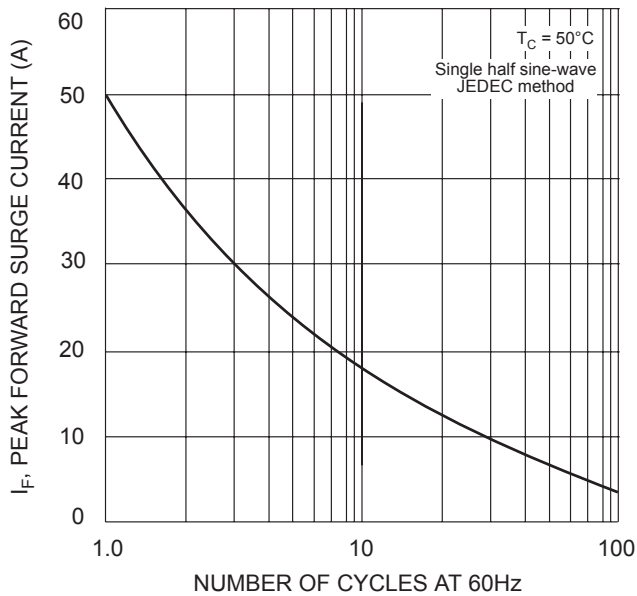


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

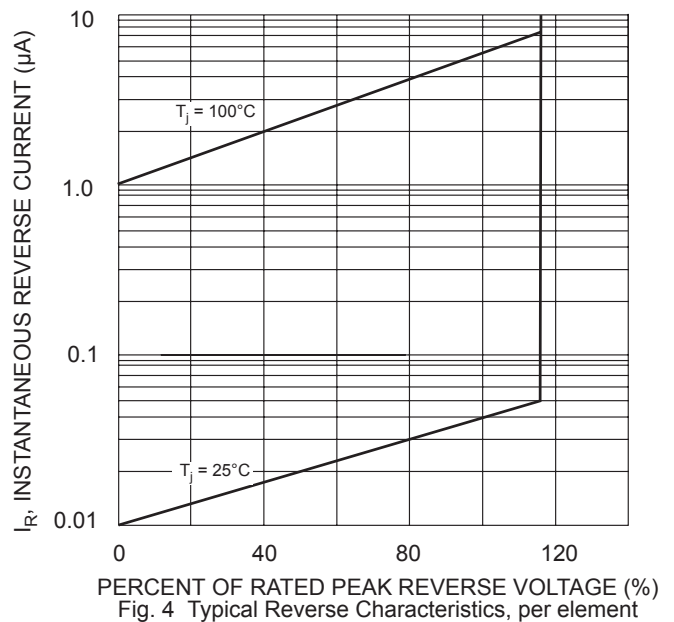


Fig. 4 Typical Reverse Characteristics, per element