

# KBPC25005 THRU KBPC2510

## Silicon Bridge Rectifiers

Reverse Voltage - 50 to 1000 Volts

Forward Current - 25 Amperes

### Features

- Low forward voltage drop
- Electrically isolated base -2000 Volts
- High surge forward current capability
- Materials used carries U/L recognition

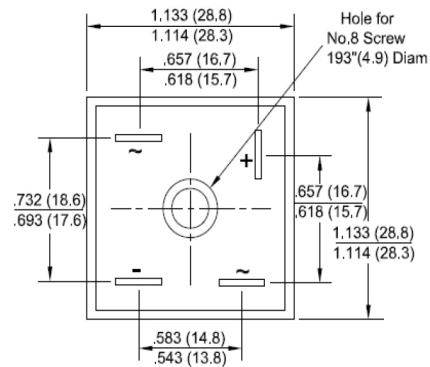
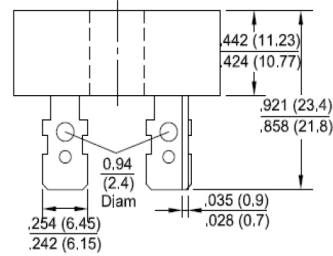
### Mechanical Data

- Polarity: Symbol marked on body
- Mounting position: Any

### Applications

- General purpose use in AC/DC bridge full wave rectification, for power supply, industrial automation applications, etc.

### KBPC



Package Outline Dimensions in Inches (Millimeters)



RoHS  
COMPLIANT

### Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

Characteristics	Symbol	KBPC	KBPC	KBPC	KBPC	KBPC	KBPC	KBPC	Unit
		25005	2501	2502	2504	2506	2508	2510	
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 Average Forward Rectified Current @ $T_c=55^\circ\text{C}$	$I_{(AV)}$	25							A
Peak Forward Surge Current, 8.3mS Single Half Sine-Wave, Superimposed on Rated Load (JEDEC Method)	$I_{FSM}$	400							A
$I^2t$ Rating for Fusing ( $t < 8.3\text{mS}$ )	$I^2t$	664							$\text{A}^2\text{s}$
Peak Forward Voltage per Diode at 12.5A DC	$V_F$	1.1							V
Maximum DC Reverse Current at Rated DC Blocking Voltage per Diode @ $T_J=25^\circ\text{C}$	$I_R$	10							$\mu\text{A}$
Operating Junction Temperature Range	$T_J$	-55 to +150							$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-55 to +150							$^\circ\text{C}$

# Rating and Characteristic Curves

## KBPC25005 THRU KBPC2510

Fig. 1 - Forward Current Derating Curve

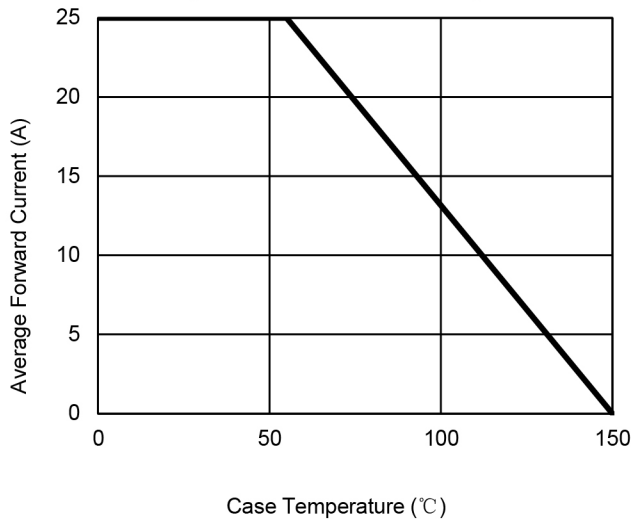


Fig. 2 - Maximum Non-Repetitive Surge Current

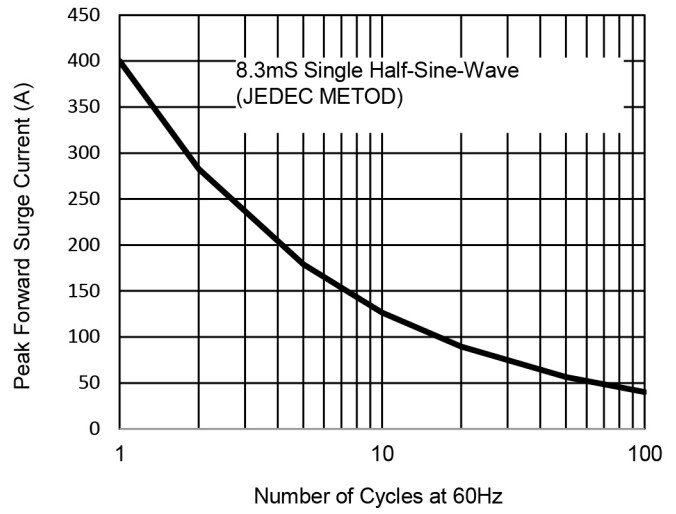


Fig. 3 - Typical Reverse Characteristics

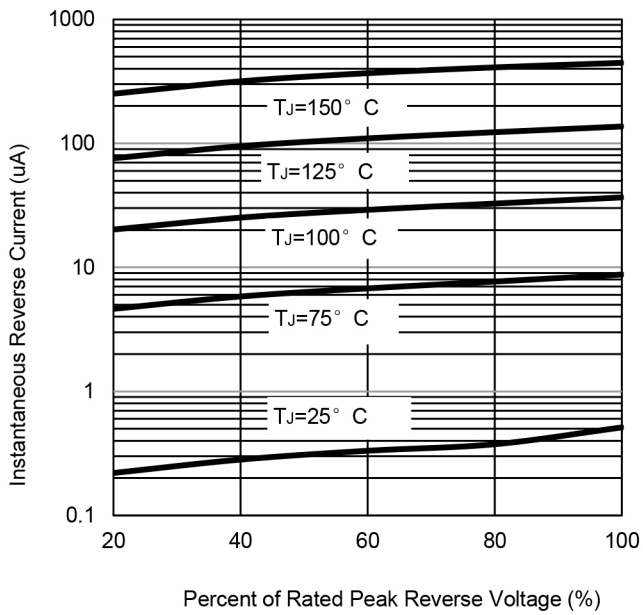
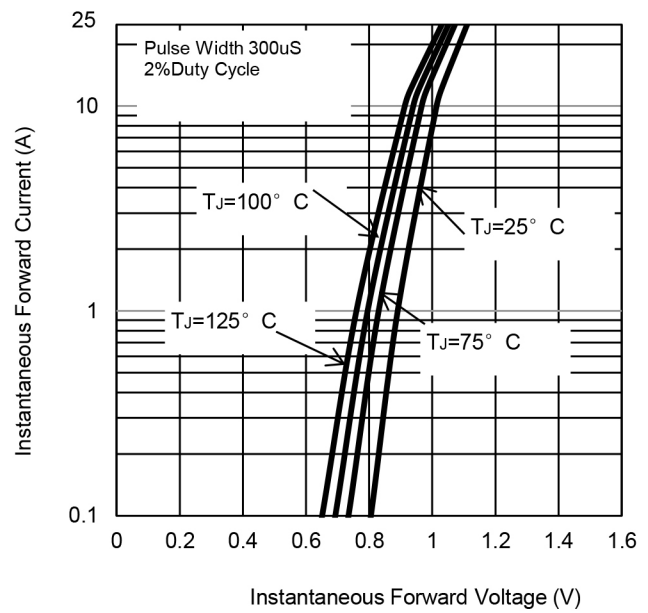


Fig. 4 - Typical Forward Characteristics



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