

## KBJ4005 THRU KBJ410 SINGLE PHASE 4.0 AMP BRIDGE RECTIFIERS



### FEATURES

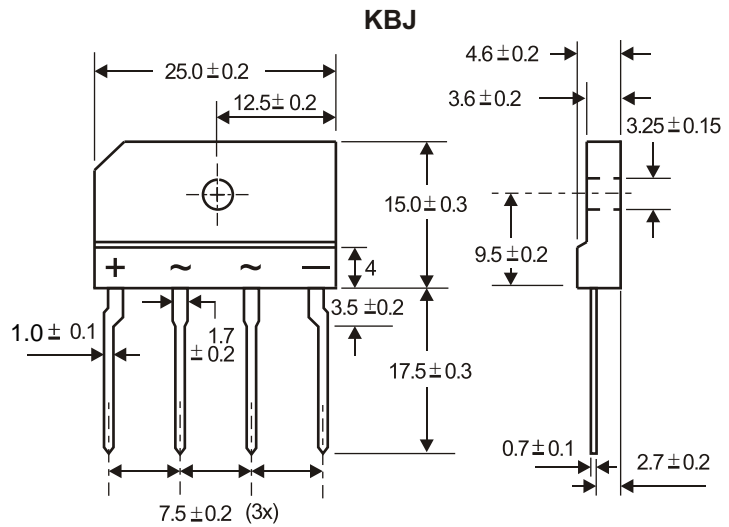
- \* Ideal for printed circuit board
- \* Low forward voltage
- \* Low leakage current
- \* Mounting position: Any

### VOLTAGE RANGE

50 to 1000 Volts

### CURRENT

4.0 Amperes



Dimensions in inches and (millimeters)

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

TYPE NUMBER	KBJ4005	KBJ401	KBJ402	KBJ404	KBJ406	KBJ408	KBJ410	UNITS
Maximum Recurrent Peak Reverse Voltage	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	50	100	200	400	600	800	1000	V
Maximum Average Forward (with heatsink Note 1)	4.0							
Rectified Current at $T_c=110^\circ\text{C}$ (Without heatsink)	2.4							A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	120							A
Maximum Forward Voltage Drop per Bridge Element at 2.0A D.C.	1.0							V
Maximum DC Reverse Current $T_a=25^\circ\text{C}$	5.0							$\mu\text{A}$
at Rated DC Blocking Voltage $T_a=100^\circ\text{C}$	500							$\mu\text{A}$
Typical Thermal Resistance $R_{jc}$ (Note 2)	5.5							$^\circ\text{C}/\text{W}$
Typical Thermal Resistance $R_{jL}$ (Note 3)	6.0							$^\circ\text{C}/\text{W}$
Operating Temperature Range, $T_j$	-55 — +150							$^\circ\text{C}$
Storage Temperature Range, $T_{stg}$	-55 — +150							$^\circ\text{C}$

#### NOTES

1. Device mounted on 50mm x 50mm x 1.6mm Cu Plate Heatsink.
2. Thermal Resistance from Junction to Case with device mounted on 50mm x 50mm x 1.6mm Cu Plate Heatsink.
3. Thermal Resistance from Junction to Lead without Heatsink.

## RATING AND CHARACTERISTIC CURVES (KBJ4005 THRU KBJ410)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

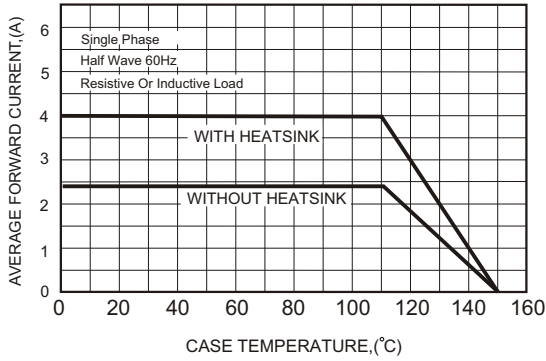


FIG.2-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

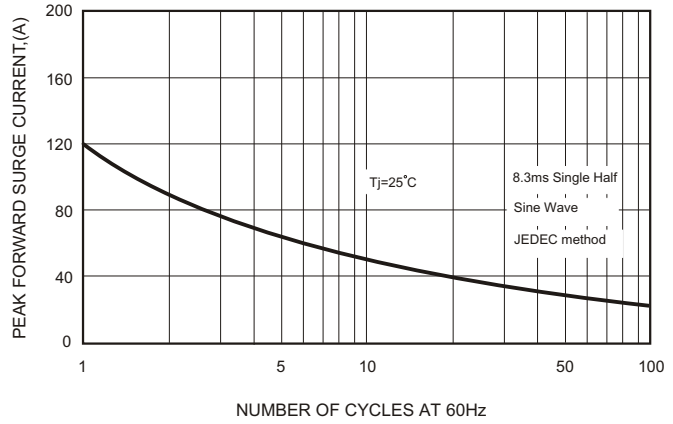


FIG.3-TYPICAL FORWARD CHARACTERISTICS

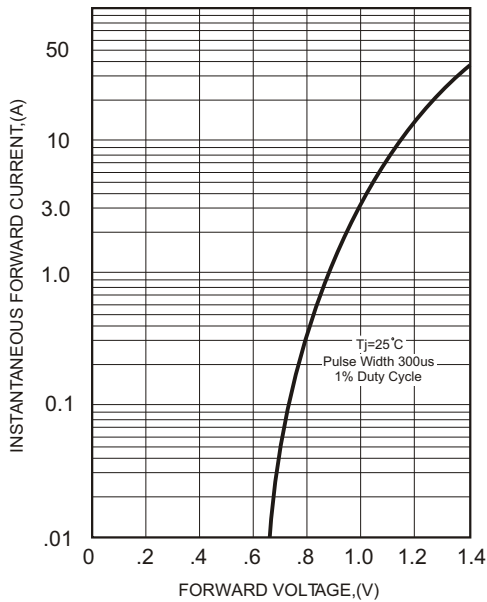


FIG.4-TYPICAL REVERSE CHARACTERISTICS

