



# KBJ4005 THRU KBJ410

Reverse Voltage - 50 to 1000 Volts Forward Current - 4.0 Amperes

## GLASS PASSIVATED BRIDGE RECTIFIERS

### Features

- ◆ Surge overload rating -135 amperes peak
- ◆ Ideal for printed circuit board
- ◆ Reliable low cost construction utilizing molded plastic technique
- ◆ Plastic material has U/L lammability classification 94V-0



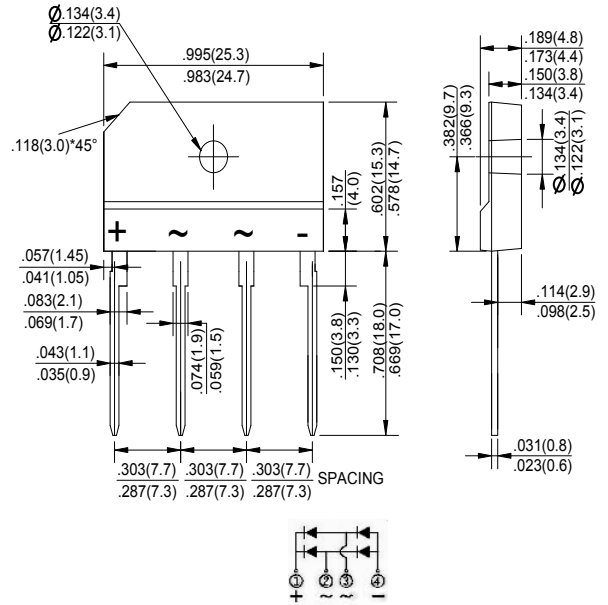
### Mechanical Data

**Case** : JEDEC KBJ Molded plastic body

**Terminals** : Solder plated, solderable per MIL-STD-750, Method 2026

**Polarity** : Polarity symbol marking on body

**Mounting Position** : Any



### Maximum Ratings And Electrical Characteristics

Dimensions in inches and (millimeters)

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%.

Parameter	SYMBOLS	MDD KBJ4005	MDD KBJ401	MDD KBJ402	MDD KBJ404	MDD KBJ406	MDD KBJ408	MDD KBJ410	UNITS	
Marking Code										
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	
Maximum average forward (with heatsink NOTE 2) Rectified current @ $T_c = 100^\circ\text{C}$ (without heatsink)	$I_{(AV)}$	4.0						2.4		A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	135								A
Rating for Fusing ( $t < 8.3\text{ms}$ )	$I^2t$	75.63								$\text{A}^2\text{s}$
Maximum forward voltage at 2.0A DC	$V_F$	1.0								V
Maximum forward voltage at 4.0A DC		1.1								
Maximum DC reverse current $T_A = 25^\circ\text{C}$ at rated DC blocking voltage $T_A = 125^\circ\text{C}$	$I_R$	10								$\mu\text{A}$
		0.5								$\text{mA}$
Typical Junction Capacitance (Note 1)	$C_J$	45								pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	2.2								$^\circ\text{C/W}$
Operating junction temperature range	$T_J$	-55 to +150								$^\circ\text{C}$
storage temperature range	$T_{STG}$	-55 to +150								$^\circ\text{C}$

- NOTES: 1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.  
 2. Device mounted on 75mm\*75mm\*1.6mm cu plate heatsink.  
 3. The typical data above is for reference only.



# KBJ4005 THRU KBJ410

Reverse Voltage - 50 to 1000 Volts Forward Current - 4.0 Amperes

## Ratings And Characteristic Curves

FIG.1-FORWARD CURRENT DERATING CURVE

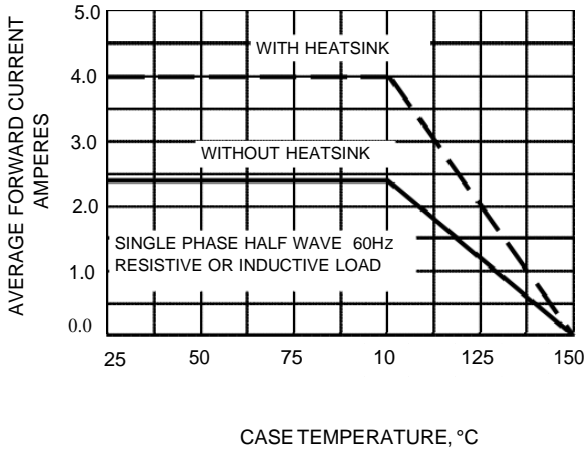


FIG.2-MAXIMUM NON-REPETITIVE SURGE CURRENT

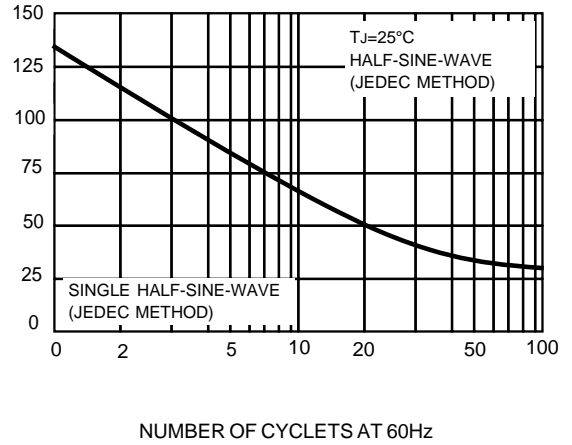


FIG.3-TYPICAL FORWARD CHARACTERISTICS

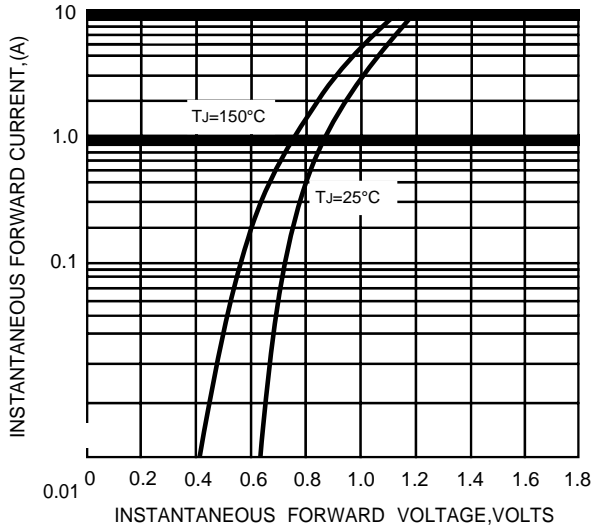


FIG.4-TYPICAL REVERSE CHARACTERISTICS

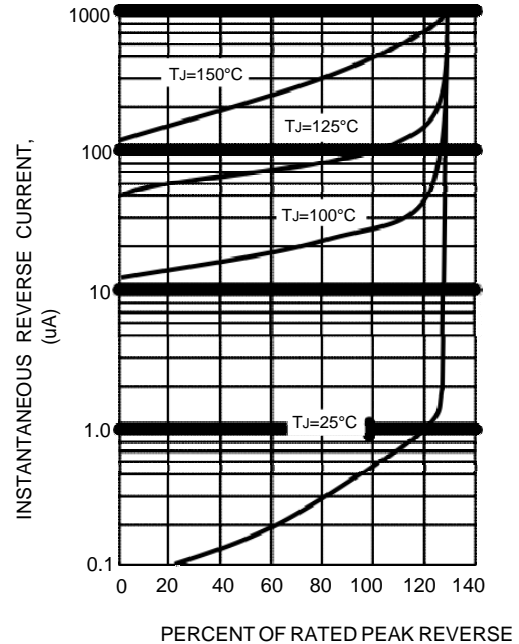
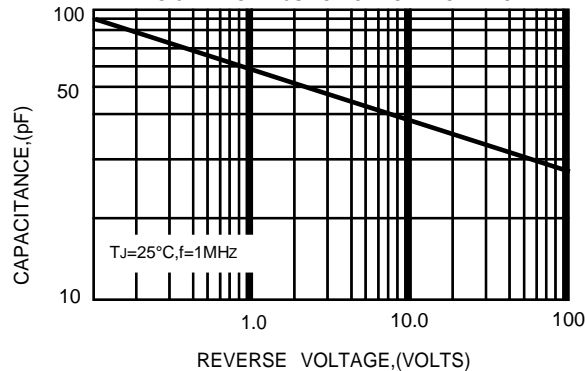


FIG.5-TYPICAL JUNCTION CAPACITANCE



The curve above is for reference only.