



# KBJ15005 THRU KBJ1510

Reverse Voltage - 50 to 1000 Volts Forward Current - 15.0 Amperes

## SILICON BRIDGE RECTIFIERS

### Features

- ◆ Ideal for printed circuit board
- ◆ Reliable low cost construction utilizing molded plastic technique
- ◆ Plastic material has U/L flammability classification 94V-0
- ◆ Low forward voltage drop, high current capability



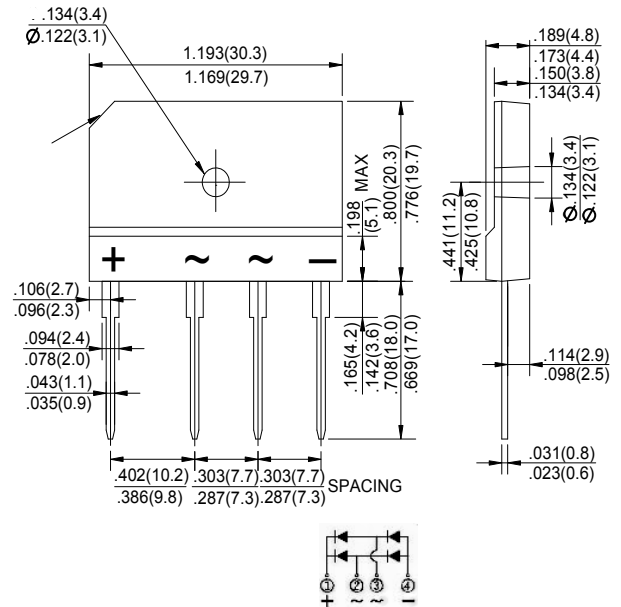
### Mechanical Data

**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



Dimensions in inches and (millimeters)

### 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%.

Parameter	SYMBOLS	MDD KBJ15005	MDD KBJ1501	MDD KBJ1502	MDD KBJ1504	MDD KBJ1506	MDD KBJ1508	MDD KBJ1510	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)	$I_{AV}$	15.0 3.2							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	240							A
Rating for Fusing ( $t < 8.3\text{ms}$ )	$I^2t$	240							$\text{A}^2\text{s}$
Maximum forward voltage at 7.5A DC	$V_F$	1.1							V
Maximum DC reverse current $T_A=25^\circ\text{C}$ at rated DC blocking voltage $T_A=125^\circ\text{C}$	$I_R$	10 0.5							$\mu\text{A}$ mA
Typical Junction Capacitance (Note 1)	$C_J$	60							pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	0.8							$^\circ\text{C}/\text{W}$
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 300mm\*300mm\*1.6mm Cu plate heatsink.  
3. The typical data above is for reference only.



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## Ratings And Characteristic Curves

FIG.1-FORWARD CURRENT DERATING CURVE

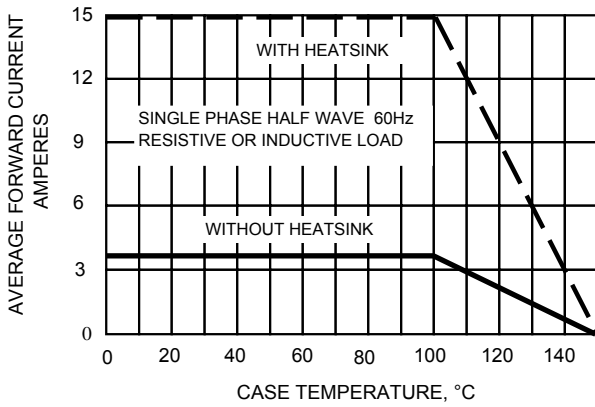


FIG.2-MAXMUN NON-REPETITIVE SURGE CURRENT

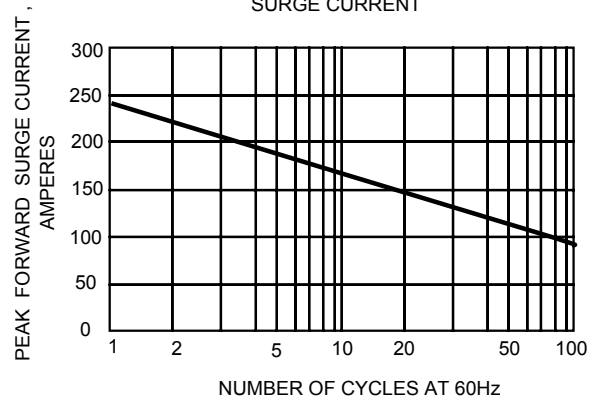


FIG.3-TYPICAL JUNCTION CAPACITANCE

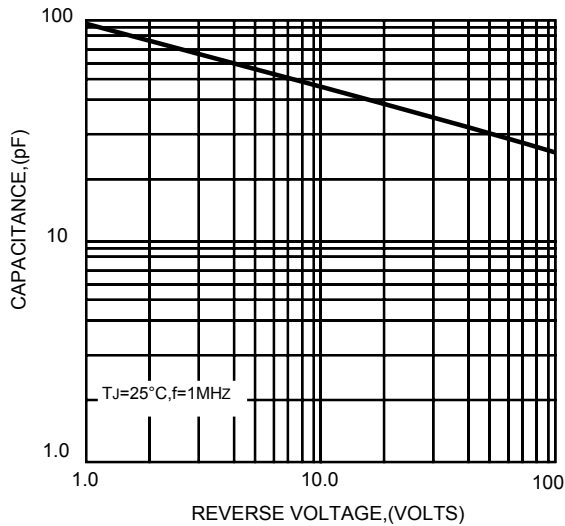


FIG.4-TYPICAL FORWARD CHARACTERISTICS

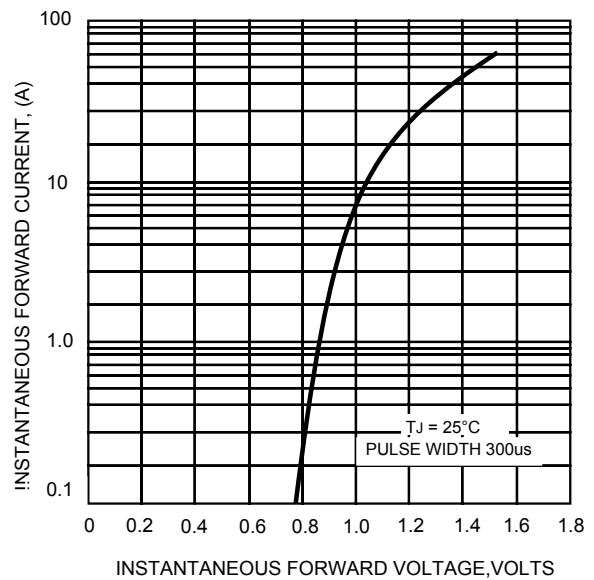
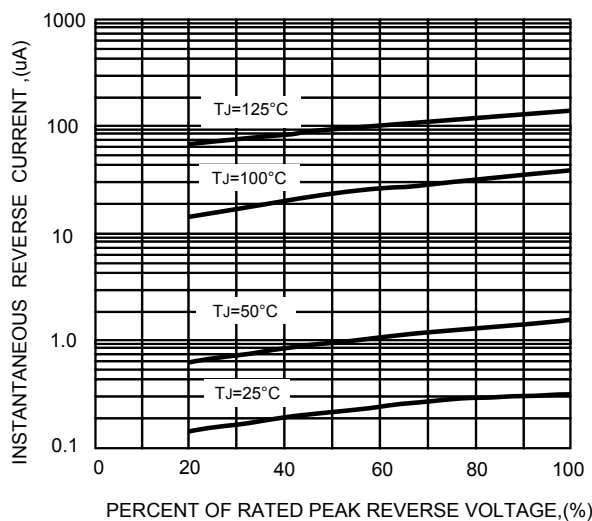


FIG.5-TYPICAL REVERSE CHARACTERISTICS



The curve above is for reference only.