

<b>SILICON BRIDGE RECTIFIERS</b>	<p style="text-align: right;"> <b>REVERSE VOLTAGE</b>     - 50 to 1000Volts  <b>FORWARD CURRENT</b>    - 25 Amperes         </p> <p style="text-align: center; border: 1px solid black; padding: 2px; width: fit-content; margin: 0 auto;"> <b>KBJ</b> </p> <p style="text-align: center;">Dimensions in inches and (millimeters)</p>
<p><b>FEATURES</b></p> <ul style="list-style-type: none"> <li>● Rating to 1000V PRV</li> <li>● Ideal for printed circuit board</li> <li>● Low forward voltage drop, high current capability</li> <li>● Reliable low cost construction utilizing molded plastic technique results in inexpensive product</li> <li>● The plastic material has UL flammability classification 94V-0</li> </ul>	

## 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	KBJ 25005	KBJ 2501	KBJ 2502	KBJ 2504	KBJ 2506	KBJ 2508	KBJ 2510	UNIT
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V <sub>RMS</sub>	30	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current (with heatsink Note 2) @ T <sub>c</sub> =100°C (without heatsink)	I <sub>(AV)</sub>	25.0 4.2							A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load (JEDEC Method)	I <sub>FSM</sub>	400							A
Maximum Forward Voltage at 12.5A DC	V <sub>F</sub>	1.1							V
Maximum DC Reverse Current at Rated DC Blocking Voltage @ T <sub>J</sub> =25°C @ T <sub>J</sub> =125°C	I <sub>R</sub>	10 500							uA
I <sup>2</sup> t Rating for Fusing (t<8.3ms)	I <sup>2</sup> t	510							A <sup>2</sup> s
Typical Junction Capacitance Per Element (Note1)	C <sub>J</sub>	85							pF
Typical Thermal Resistance (Note2)	R <sub>θJC</sub>	0.6							°C/W
Operating Temperature Range	T <sub>J</sub>	-55 to +125							°C
Storage Temperature Range	T <sub>STG</sub>	-55 to +150							°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.

FIG.1-FORWARD CURRENT DERATING CURVE

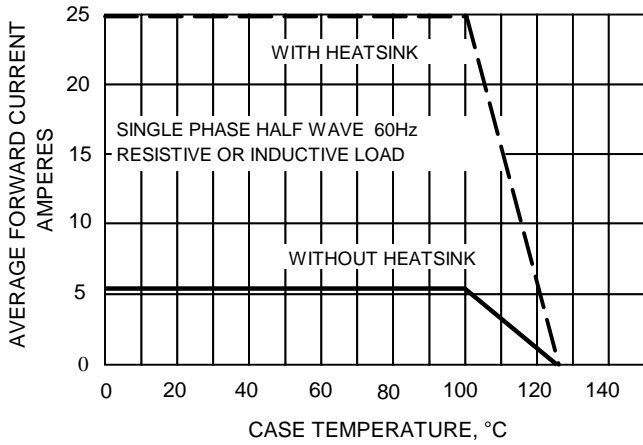


FIG.2-MAXMUN NON-REPETITIVE SURGE CURRENT

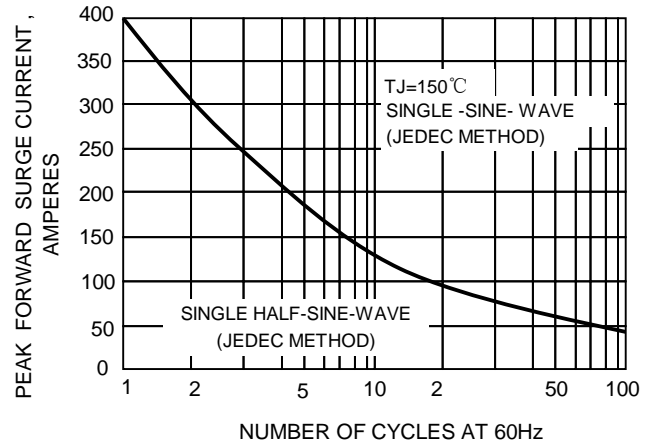


FIG.3-TYPICAL JUNCTION CAPACITANCE

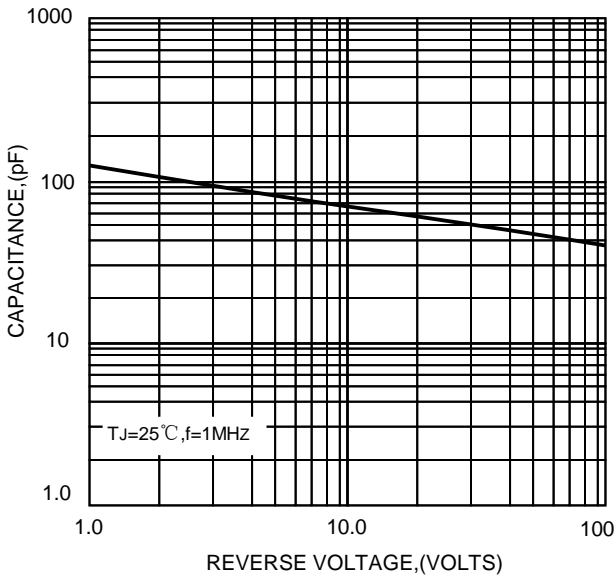


FIG.4-TYPICAL FORWARD CHARACTERISTICS

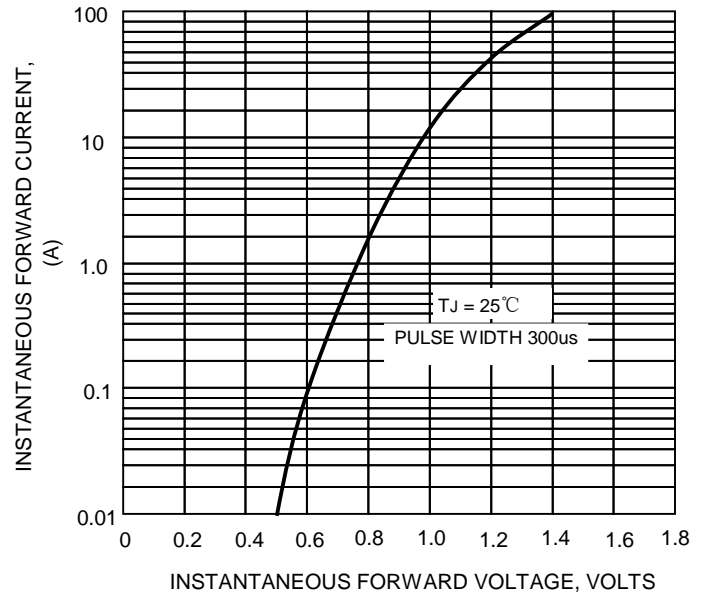


FIG.5-TYPICAL REVERSE CHARACTERISTICS

