

<b>SILICON BRIDGE RECTIFIERS</b>	<b>REVERSE VOLTAGE - 50 to 1000Volts</b> <b>FORWARD CURRENT - 10 Amperes</b>
<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>	<div style="text-align: center; margin-bottom: 10px;"> <b>KBJ</b> </div> <p style="text-align: center;">Dimensions in inches and (millimeters)</p>

## 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 10005	KBJ 1001	KBJ 1002	KBJ 1004	KBJ 1006	KBJ 1008	KBJ 1010	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>	35	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 @ T <sub>C</sub> =110°C (without heatsink)	I <sub>(AV)</sub>	10.0							3.0	A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load (JEDEC Method)	I <sub>FSM</sub>	240								A
Maximum Forward Voltage at 5.0A DC	V <sub>F</sub>	1.0								V
Maximum DC Reverse Current at Rated DC Blocking Voltage @ T <sub>J</sub> =25°C	I <sub>R</sub>	10								μA
Maximum DC Reverse Current at Rated DC Blocking Voltage @ T <sub>J</sub> =125°C	I <sub>R</sub>	500								μA
I <sup>2</sup> t Rating for Fusing (t<8.3ms)	I <sup>2</sup> t	120								A <sup>2</sup> s
Typical Junction Capacitance Per Element (Note1)	C <sub>J</sub>	55								pF
Typical Thermal Resistance (Note2)	R <sub>θJC</sub>	1.4								°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 150mm\*150mm\*1.6mm cu plate heatsink.



FIG.1-FORWARD CURRENT DERATING CURVE

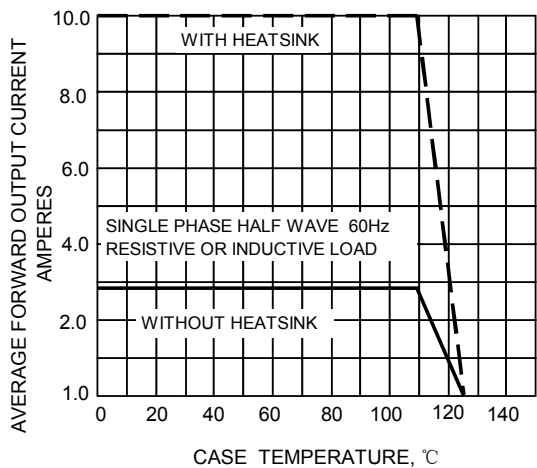


FIG.2-MAXMUN NON-REPETITIVE SURGE CURRENT

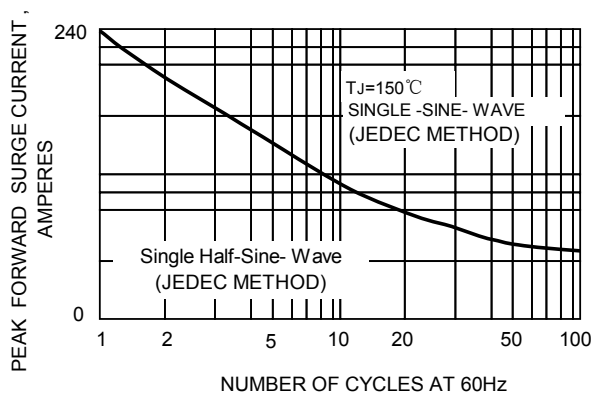


FIG.3-TYPICAL JUNCTION CAPACITANCE

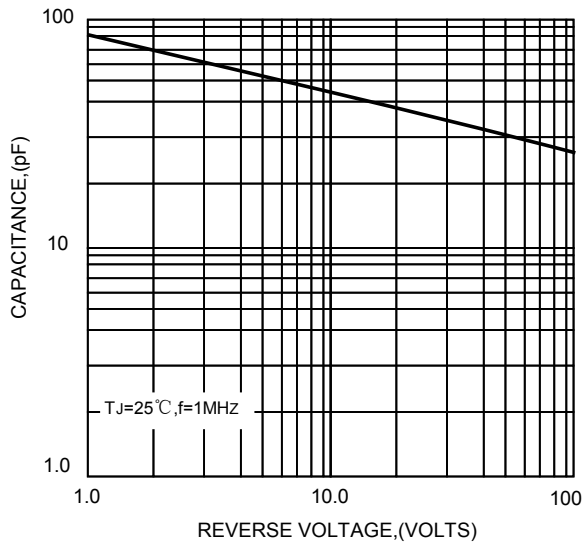


FIG.4-TYPICAL FORWARD CHARACTERISTICS

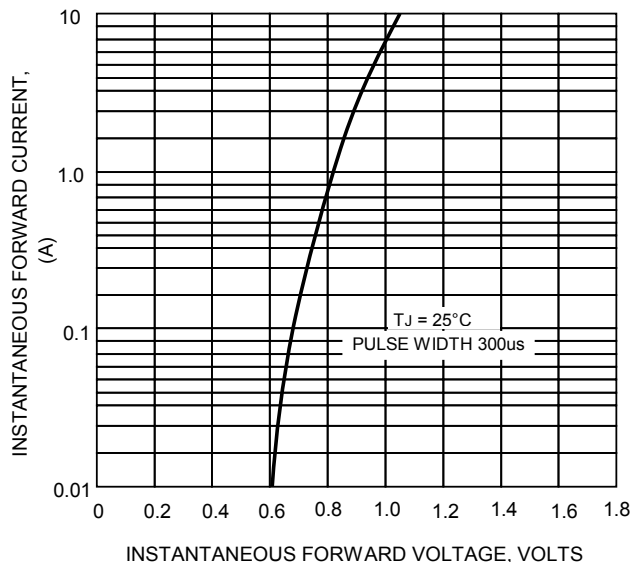


FIG.5-TYPICAL REVERSE CHARACTERISTICS

