

<p><b>GLASS PASSIVATED BRIDGE RECTIFIERS</b></p>	<p><b>REVERSE VOLTAGE 50 to 1000 Volts FORWARD CURRENT 3 Amperes</b></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>• Plastic material has underwriters laboratory flammability classification 94V-0</li> </ul> <p><b>MECHANICAL DATA</b></p> <ul style="list-style-type: none"> <li>• Case: KBP</li> <li>• Polarity: As marked on Body</li> <li>• Mounting position: Any</li> <li>• Weight : 0.06 ounces, 1.7 grams</li> </ul>	<p style="text-align: center;">Dimensions in inches and (millimeters)</p>

**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, derate current by 20%

Characteristics	Symbol	KBP 3005G	KBP 301G	KBP 302G	KBP 304G	KBP 306G	KBP 308G	KBP 310G	Unit
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 Rectified Current @ $T_A=50^\circ C$	$I_{(AV)}$	3							A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Super Imposed on Rated Load (JEDEC)	$I_{FSM}$	80							A
Maximum Forward Voltage Drop Per Bridge Element at 1.5A DC	$V_F$	1.1							V
Maximum Reverse Current at Rated DC Blocking Voltage	$I_R$	5							$\mu A$
@ $T_A=25^\circ C$		500							
@ $T_A=100^\circ C$									
$I^2t$ Rating for Fusing (1ms≤t≤8.3ms)	$I^2t$	26							$A^2s$
Typical Junction Capacitance per leg (Note 1)	$C_J$	25							pF
Typical Thermal Resistance per leg (Note 2)	$R_{\theta JA}$ $R_{\theta JC}$	30 11							$^\circ C/W$
Junction and Storage Temperature Range	$T_J, T_{STG}$	-55 to +150							$^\circ C$

Note:  
 1. Measured at 1MHz and applied reverse voltage of 4V  
 2. Thermal resistance from junction to ambient and from junction to lead mounted on PCB with 0.47x0.47" (12x12mm) copper pads.

**Rating and Characteristic Curves**

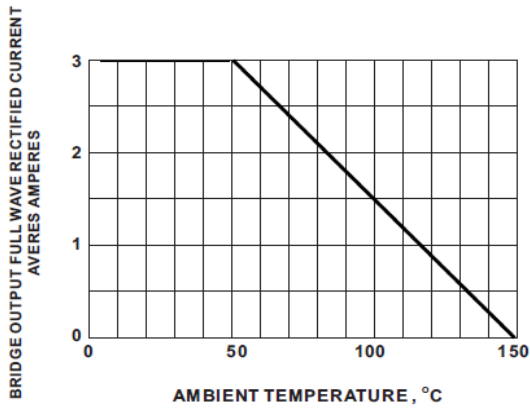


Fig.1 DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

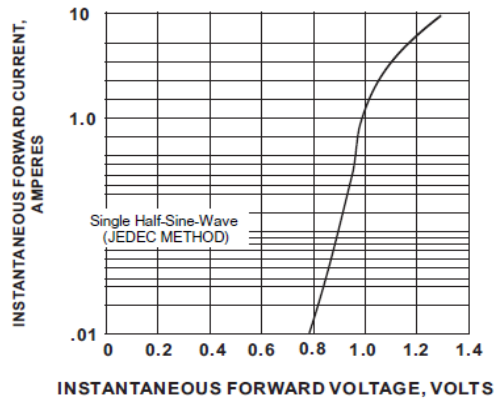


Fig.2 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

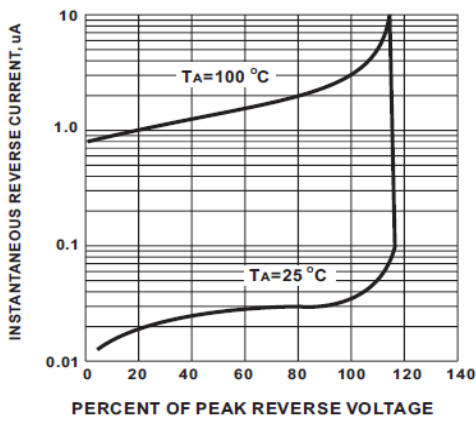


Fig.3 TYPICAL PEAK REVERSE CHARACTERISTICS

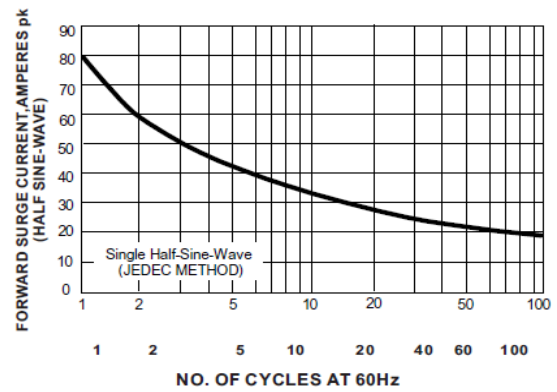


Fig.4 MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT