America Semiconductor

Silicon Bridge Rectifier

KBPM2005G thru KBPM204G

V_{RRM} = 50 V - 1000 V

I_F =2 A

Features

- Types up to 1000 V V_{RRM}
- Ideal for printed circuit board
- Surge overload rating to 65 Amps peak
- High temperature soldering guaranteed 250°C/ 10 seconds
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Reliable, low cost construction utilizing molded plastic technique

KBPM Package

Mechanical Data

Leads: Tin plated copper

Weight: 0.047 oz, 1.33 g

Mounting position: Any

Terminals: Leads solderable per MIL-STD-202, Method 208

Maximum ratings, at T_j = 25 °C, unless otherwise specified

Parameter	Symbol	Conditions	KBPM2005G	KBPM201G	KBPM202G	KBPM204G	Unit
Repetitive peak reverse voltage	V_{RRM}		50	100	200	400	V
RMS reverse voltage	V_{RMS}		35	70	140	280	V
DC blocking voltage	V_{DC}		50	100	200	400	V
Continuous forward current	I_F	$T_C \leq 65°C$	2	2	2	2	A
Surge non-repetitive forward current, Half Sine Wave	$I_{F,SM}$	T_C = 25 °C, t_p = 8.3 ms	65	65	65	65	A
Operating temperature	T_j		-55 to 150	-55 to 150	-55 to 150	-55 to 150	°C
Storage temperature	T_{stg}		-55 to 150	-55 to 150	-55 to 150	-55 to 150	°C

Electrical characteristics, at Tj = 25 °C, unless otherwise specified

Parameter	Symbol	Conditions	KBPM2005G	KBPM201G	KBPM202G	KBPM204G	Unit
Diode forward voltage	V_F	I_F = 2 A, T_j = 25 °C	1.1	1.1	1.1	1.1	V
Reverse current	I_R	V_R = 50 V, T_j = 25 °C	5	5	5	5	µA
		V_R = 50 V, T_j = 125 °C	500	500	500	500	
Thermal characteristics							
Thermal resistance, junction - case	R_{thJA}		14.0	14.0	14.0	14.0	°C/W

FIG.1-DERATING CURVE FOR OUTPUT RECTIFIER CURRENT

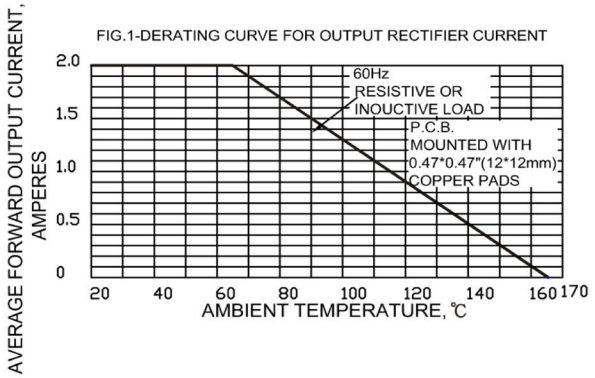

FIG.2-MAXIMUN NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

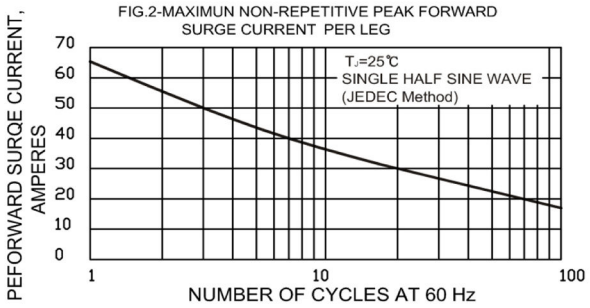

FIG.3-TYPICAL FORWARD CHARACTERISTICS PER LEG

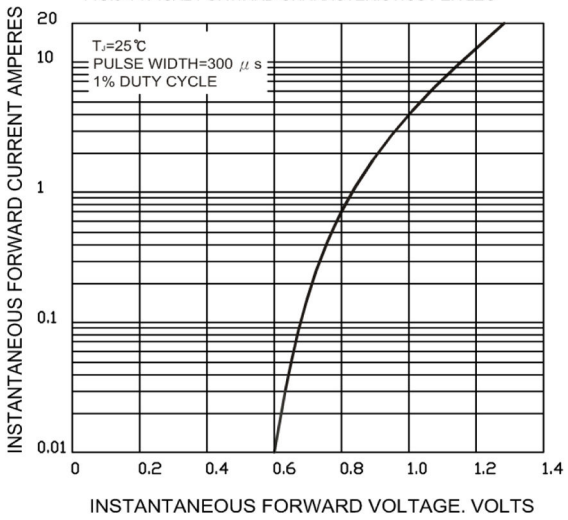

FIG.4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS PER LEG

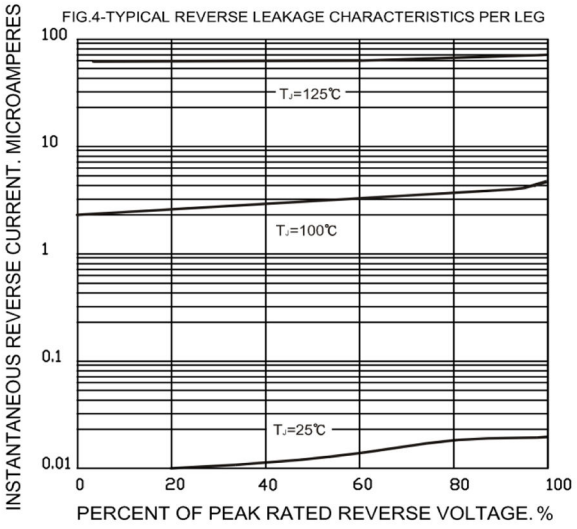

FIG.5-TYPICAL JUNCTION CAPACITANCE PER LGE