America Semiconductor

KBPM306G thru KBPM310G

Silicon Bridge Rectifier

V_{RRM} = 50 V - 1000 V

I_F = 3 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

Polarity: Polarity marked on body

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

Parameter	Symbol	Conditions	KBPM306G	KBPM308G	KBPM310G	Unit
Repetitive peak reverse voltage	V_{RRM}		600	800	1000	V
RMS reverse voltage	V_{RMS}		420	560	700	V
DC blocking voltage	V_{DC}		600	800	1000	V
Continuous forward current	I_F	$T_C \leq 65$ °C	3	3	3	A
Surge non-repetitive forward current, Half Sine Wave	$I_{F,SM}$	T_C = 25 °C, t_p = 8.3 ms	80	80	80	A
Operating temperature	T_j		-55 to 150	-55 to 150	-55 to 150	°C
Storage temperature	T_{stg}		-55 to 150	-55 to 150	-55 to 150	°C

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

Parameter	Symbol	Conditions	KBPM306G	KBPM308G	KBPM310G	Unit
Diode forward voltage	V_F	I_F = 3 A, T_j = 25 °C	1.1	1.1	1.1	V
Reverse current	I_R	V_R = 50 V, T_j = 25 °C V_R = 50 V, T_j = 125 °C	5 500	5 500	5 500	µA
Thermal characteristics						
Thermal resistance, junction - case	R_{thJA}		14.0	14.0	14.0	°C/W

FIG.1-DERATING CURVE FOR OUTPUT RECTIFIER CURRENT

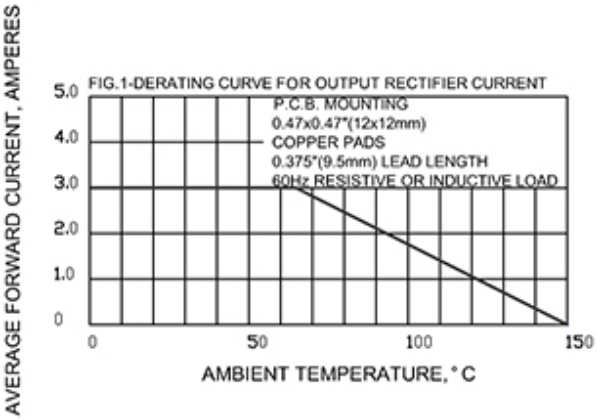


FIG.2-MAXIMUN NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

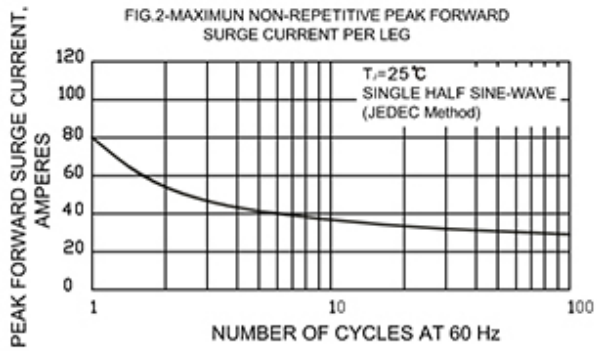


FIG.3-TYPICAL FORWARD CHARACTERISTICS PER LEG

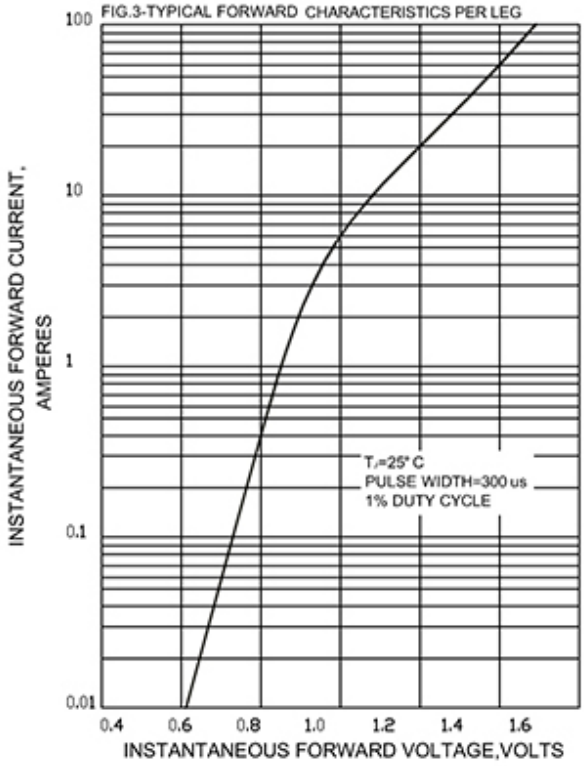


FIG.4-TYPICAL REVERSE CHARACTERISTICS PER LEG

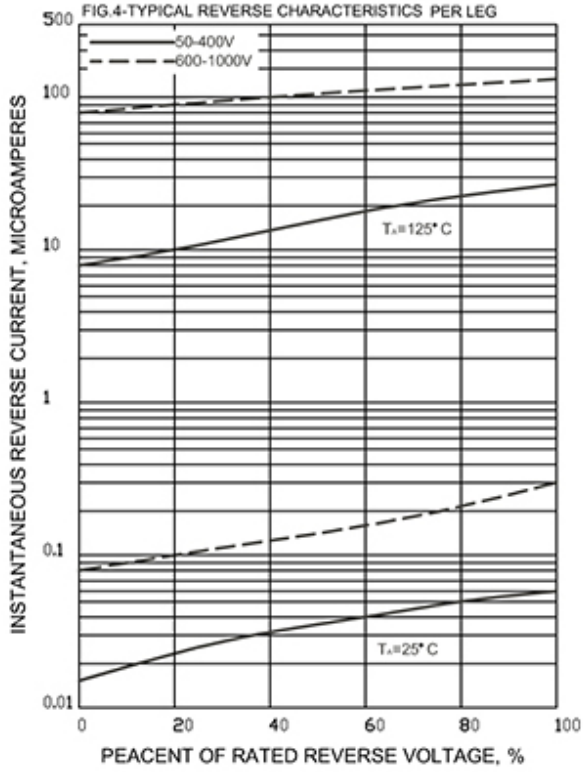


FIG.5-TYPICAL JUNTION CAPACITANCE PER LEG

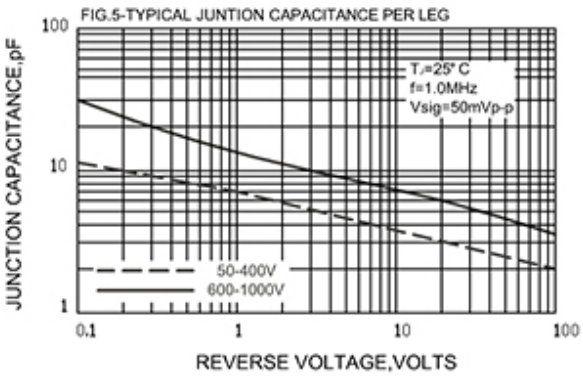


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE PER LEG

