

Silicon Bridge Rectifier

$V_{RRM} = 50 \text{ V} - 1000 \text{ V}$

$I_F = 3 \text{ A}$

Features

- Types up to 1000 V V_{RRM}
- Ideal for printed circuit board
- Surge overload rating to 80 Amps peak
- 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 $T_j = 25^\circ\text{C}$, unless otherwise specified

Parameter	Symbol	Conditions	KBPM3005G	KBPM301G	KBPM302G	KBPM304G	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	$T_C \leq 65^\circ\text{C}$	3	3	3	3	A
Surge non-repetitive forward current, Half Sine Wave	$I_{F,SM}$	$T_C = 25^\circ\text{C}$, $t_p = 8.3 \text{ ms}$	80	80	80	80	A
Operating temperature	T_j		-55 to 150	-55 to 150	-55 to 150	-55 to 150	$^\circ\text{C}$
Storage temperature	T_{stg}		-55 to 150	-55 to 150	-55 to 150	-55 to 150	$^\circ\text{C}$

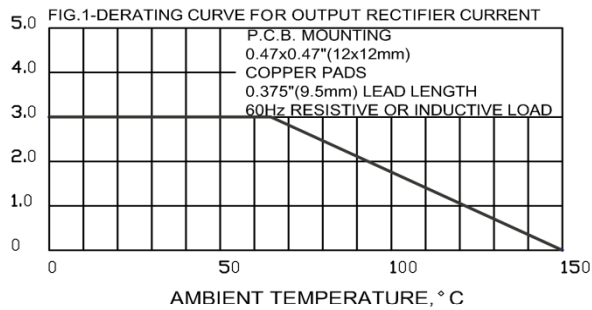
Electrical characteristics, at $T_j = 25^\circ\text{C}$, unless otherwise specified

Parameter	Symbol	Conditions	KBPM3005G	KBPM301G	KBPM302G	KBPM304G	Unit
Diode forward voltage	V_F	$I_F = 3 \text{ A}$, $T_j = 25^\circ\text{C}$	1.1	1.1	1.1	1.1	V
Reverse current	I_R	$V_R = 50 \text{ V}$, $T_j = 25^\circ\text{C}$	5	5	5	5	μA
		$V_R = 50 \text{ V}$, $T_j = 125^\circ\text{C}$	500	500	500	500	

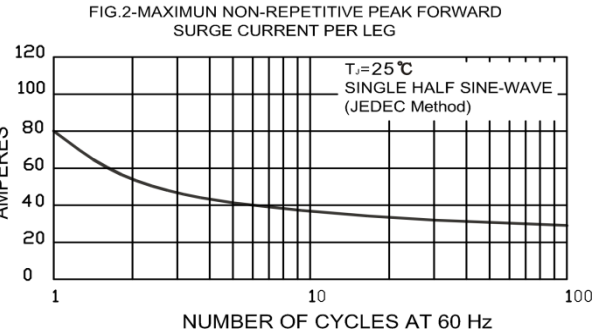
Thermal characteristics

Thermal resistance, junction - case	R_{thJA}		14.0	14.0	14.0	14.0	$^\circ\text{C/W}$
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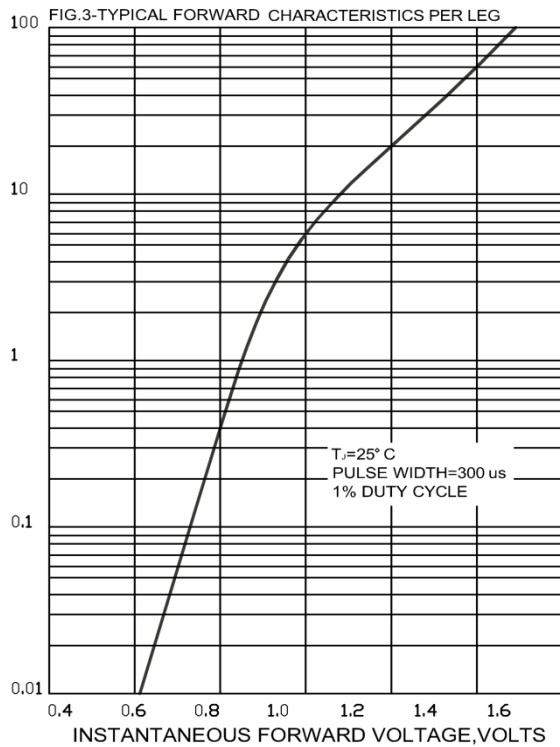
AVERAGE FORWARD CURRENT, AMPERES



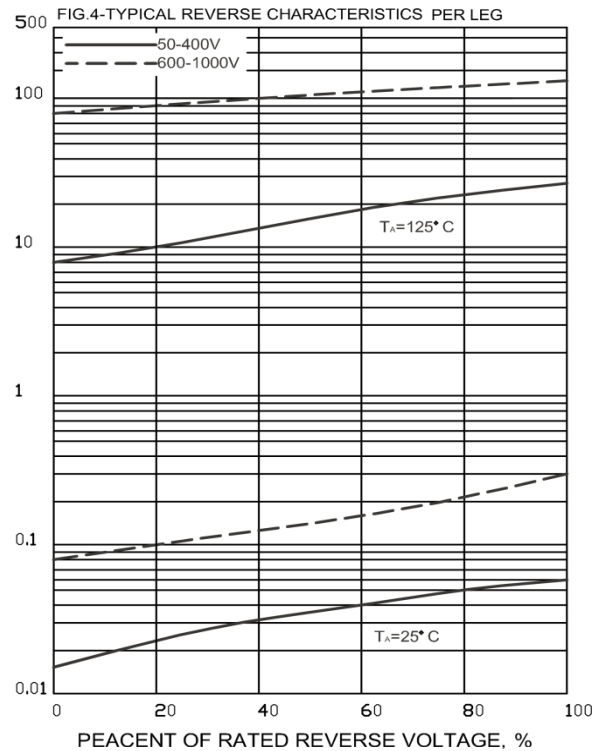
PEAK FORWARD SURGE CURRENT, AMPERES



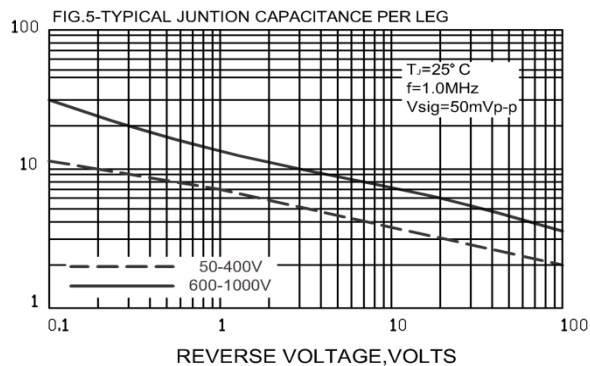
INSTANTANEOUS FORWARD CURRENT, AMPERES



INSTANTANEOUS REVERSE CURRENT, MICROAMPERES



JUNCTION CAPACITANCE, pF



TRANSIENT THERMAL IMPEDANCE, $^\circ\text{C/W}$

