



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 $T_J = 25\text{ }^\circ\text{C}$, 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	$T_C \leq 65\text{ }^\circ\text{C}$	3	3	3	3	A
Surge non-repetitive forward current, Half Sine Wave	I_{FSM}	$T_C = 25\text{ }^\circ\text{C}$, $t_p = 8.3\text{ ms}$	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 $T_J = 25\text{ }^\circ\text{C}$, unless otherwise specified

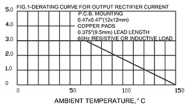
Parameter	Symbol	Conditions	KBPM3005G	KBPM301G	KBPM302G	KBPM304G	Unit
Diode forward voltage	V_F	$I_F = 3\text{ A}$, $T_J = 25\text{ }^\circ\text{C}$	1.1	1.1	1.1	1.1	V
Reverse current	I_R	$V_R = 50\text{ V}$, $T_J = 25\text{ }^\circ\text{C}$	5	5	5	5	μA
		$V_R = 50\text{ V}$, $T_J = 125\text{ }^\circ\text{C}$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

Thermal characteristics

Parameter	Symbol	Conditions	KBPM3005G	KBPM301G	KBPM302G	KBPM304G	Unit
Thermal resistance, junction - case	$R_{\theta J-C}$		14.0	14.0	14.0	14.0	$^\circ\text{C/W}$

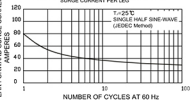


AVERAGE FORWARD CURRENT, AMPERES

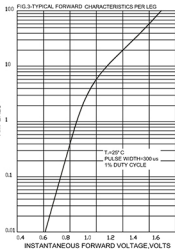


PEAK FORWARD SURGE CURRENT,

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

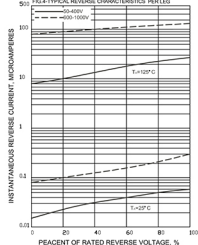


INSTANTANEOUS FORWARD CURRENT, AMPERES



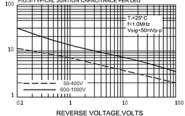
INSTANTANEOUS REVERSE CURRENT, MICROAMPERES

FIG. 4-TYPICAL REVERSE CHARACTERISTICS PER LEG



JUNCTION CAPACITANCE, pF

FIG. 5-TYPICAL JUNCTION CAPACITANCE PER LEG



TRANSIENT THERMAL IMPEDANCE, °C/W

FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE PER LEG

