



America Semiconductor

**Silicon Bridge
Rectifier**

**KBPM3005G thru
KBPM304G**

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

$I_F = 3\text{ A}$

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 $T_j = 25\text{ }^\circ\text{C}$, 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 | $T_C \leq 65^\circ\text{C}$ | 3 | 3 | 3 | 3 | A |
| Surge non-repetitive forward current, Half Sine Wave | $I_{F,SM}$ | $T_C = 25\text{ }^\circ\text{C}$, $t_p = 8.3\text{ ms}$ | 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 | $V_R = 50\text{ V}$, $T_j = 25\text{ }^\circ\text{C}$ $V_R = 50\text{ V}$, $T_j = 125\text{ }^\circ\text{C}$ | 5 | 5 | 5 | 5 | μA |

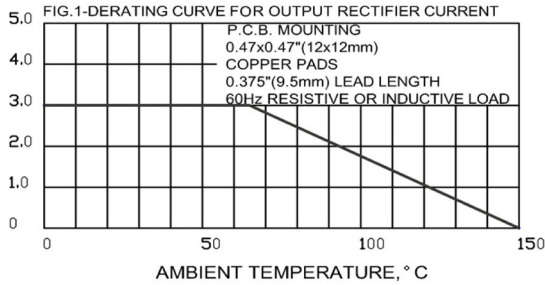
Thermal characteristics

| | | | | | | | |
|-------------------------------------|------------|--|------|------|------|------|--------------------|
| Thermal resistance, junction - case | R_{thJA} | | 14.0 | 14.0 | 14.0 | 14.0 | $^\circ\text{C/W}$ |
|-------------------------------------|------------|--|------|------|------|------|--------------------|

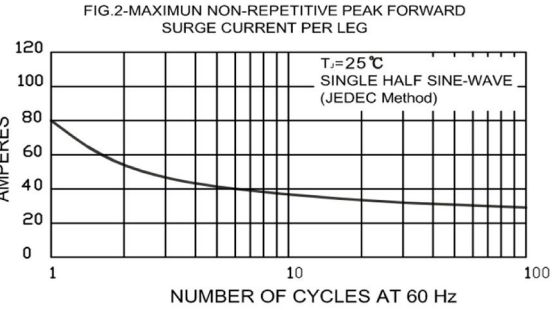




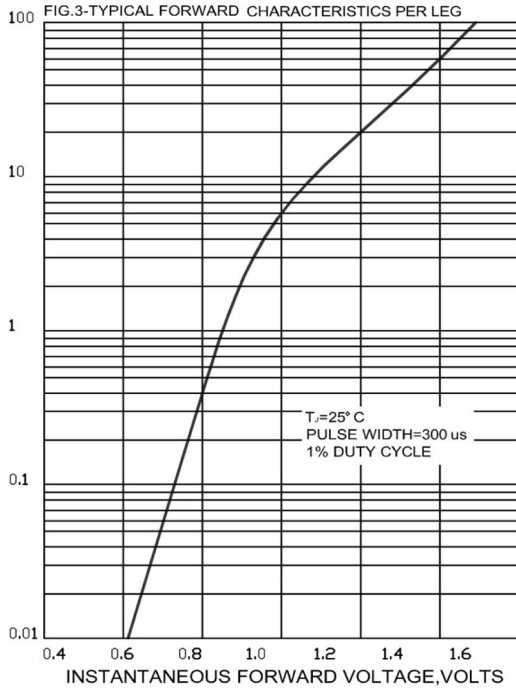
AVERAGE FORWARD CURRENT, AMPERES



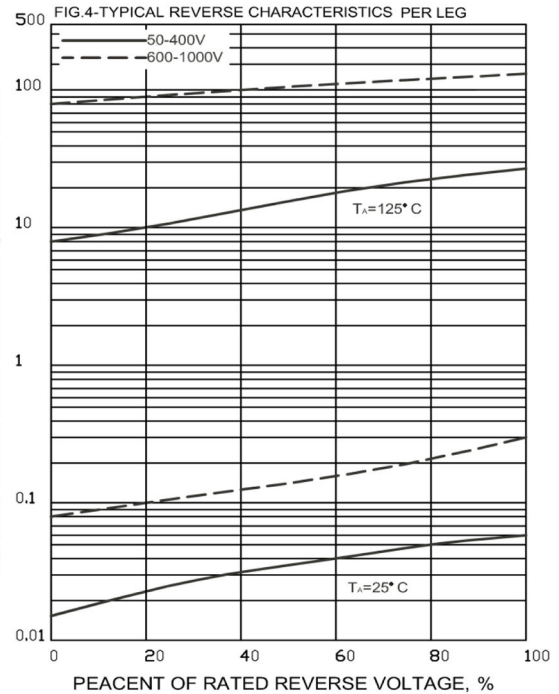
PEAK FORWARD SURGE CURRENT, AMPERES



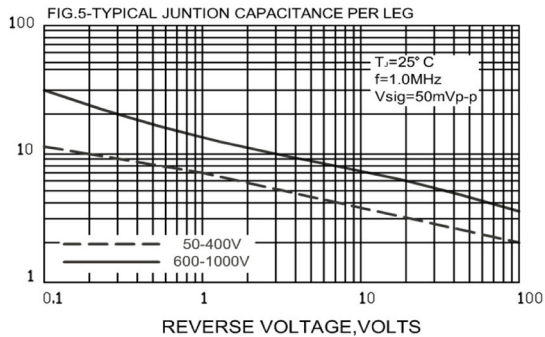
INSTANTANEOUS FORWARD CURRENT, AMPERES



INSTANTANEOUS REVERSE CURRENT, MICROAMPERES



JUNCTION CAPACITANCE, pF



TRANSIENT THERMAL IMPEDANCE, °C/W

