

Single Phase Glass Passivated Silicon Bridge Rectifier

$V_{RRM} = 50\text{ V} - 400\text{ V}$

$I_O = 2\text{ A}$

Features

- Ideal for printed circuit board
- Plastic material has Underwriters Laboratory Flammability Classification 94V-0
- Built-in printed circuit board stand-offs
- High temperature soldering guaranteed 265°C/ 10 seconds
- High case dielectric strength
- Types from 50 V to 400 V V_{RRM}
- Not ESD Sensitive

Mechanical Data

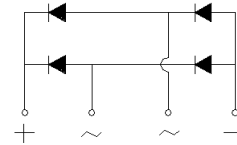
Case: Reliable low cost construction

Terminals: Plated leads, solderable per MIL-STD-202, Method 208

Mounting position: Any

Weight: 0.065 oz, 2.2 grams

KBP Package



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

| Parameter | Symbol | Conditions | KBP201G | KBP202G | KBP203G | KBP204G | 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 |
| 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

Single phase, half sine wave, 60 Hz, resistive or inductive load

For capacitive load derate current by 20%

| Parameter | Symbol | Conditions | KBP201G | KBP202G | KBP203G | KBP204G | Unit |
|--|-----------|-----------------------------------|---------|---------|---------|---------|---------------|
| Maximum average forward rectified current | I_O | $T_a = 50\text{ }^\circ\text{C}$ | 2 | 2 | 2 | 2 | A |
| Peak forward surge current | I_{FSM} | single sine-wave | 60 | 60 | 60 | 60 | A |
| Maximum instantaneous forward voltage per leg | V_F | $I_F = 2\text{ A}$ | 1.1 | 1.1 | 1.1 | 1.1 | V |
| Maximum reverse current at rated DC blocking voltage per leg | I_R | $T_a = 25\text{ }^\circ\text{C}$ | 10 | 10 | 10 | 10 | μA |
| | | $T_a = 100\text{ }^\circ\text{C}$ | 500 | 500 | 500 | 500 | |

Thermal characteristics

| Parameter | Symbol | Conditions | KBP201G | KBP202G | KBP203G | KBP204G | Unit |
|--------------------|-----------------|------------|---------|---------|---------|---------|--------------------|
| Thermal resistance | $R_{\theta JL}$ | | 25 | 25 | 25 | 25 | $^\circ\text{C/W}$ |

FIG.1-MAXIMUM FORWARD CURRENT DERATING CURVE

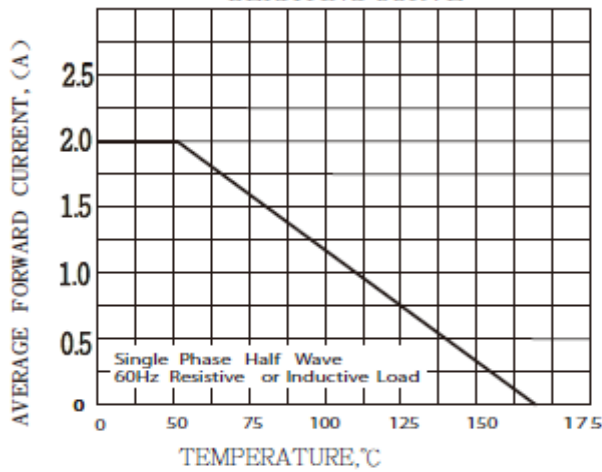


FIG.2-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

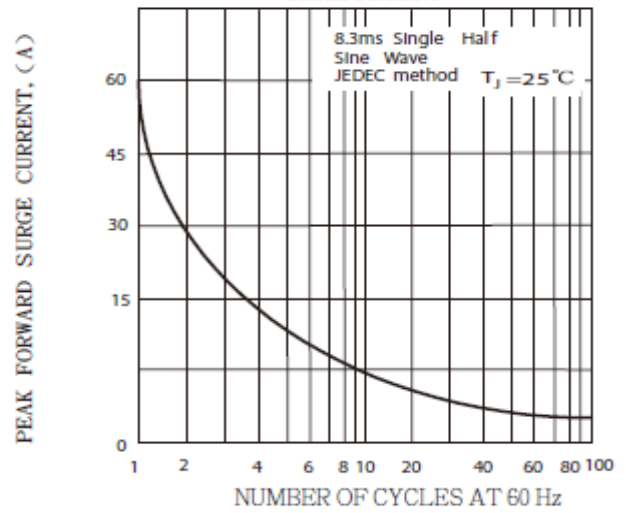


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

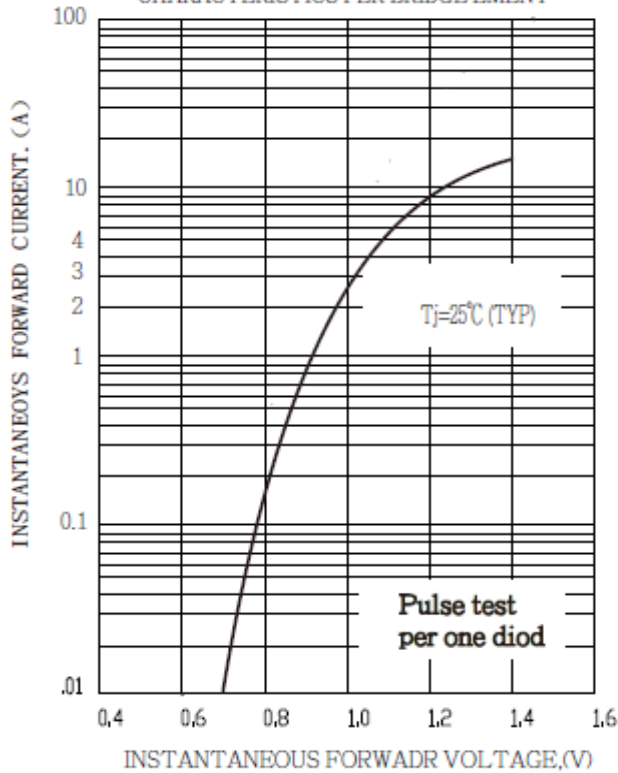
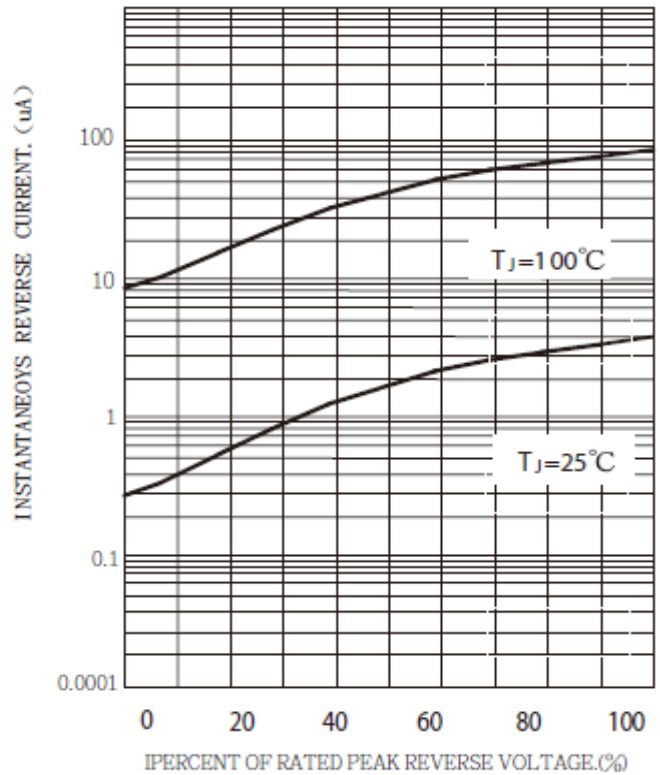


FIG.4-TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT



Package dimensions and terminal configuration

Product is marked with part number and terminal configuration.

