

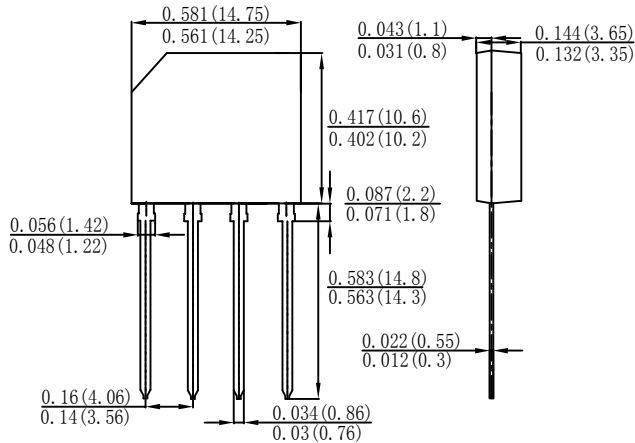


KBP3005K THRU KBP310K

SILICON BRIDGE RECTIFIERS

Reverse Voltage - 50 to 1000 Volts Forward Current - 3.0 Amperes

KBP-K



Dimensions in inches and (millimeters)

FEATURES

- ◆ Glass passivated die construction
- ◆ Low forward voltage drop
- ◆ High current capability
- ◆ High surge current capability
- ◆ Plastic material-UL flammability 94V-0

MECHANICAL DATA

Case: KBP-K Molded plastic body
Terminals: Plated leads solderable per MIL-STD-202, Method 208
Polarity: As marked on case
Mounting Position: Any
Marking : Type number

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.
 Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

| TWGMC Catalog Number | SYMBOLS | KBP 3005K | KBP 301K | KBP 302K | KBP 304K | KBP 307K | KBP 308K | KBP 310K | UNITS |
|---|-----------------|-------------------------|----------|----------|----------|----------|----------|----------|--------------------|
| Maximum repetitive peak reverse voltage | V_{RRM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | VOLTS |
| Maximum RMS voltage | V_{RMS} | 35 | 70 | 140 | 280 | 420 | 560 | 700 | VOLTS |
| Maximum DC blocking voltage | V_{DC} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | VOLTS |
| Maximum average forward output rectified current at $T_A=50^\circ\text{C}$ (Note 1) | $I_{(AV)}$ | 3.0 | | | | | | | Amps |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) | I_{FSM} | 60.0 | | | | | | | Amps |
| Forward voltage per element @ $I_F=3.0A$ | V_F | 1.1 | | | | | | | Volts |
| Maximum DC reverse current at rated DC blocking voltage | I_R | $T_A=25^\circ\text{C}$ | | | | | | | μA |
| | | $T_A=125^\circ\text{C}$ | | | | | | | mA |
| Typical Thermal Resistance per leg(Note 2) | $R_{\theta JA}$ | 30 | | | | | | | $^\circ\text{C/W}$ |
| | $R_{\theta JL}$ | 11 | | | | | | | |
| Operating junction temperature range | T_J, T_{STG} | -55 to +150 | | | | | | | $^\circ\text{C}$ |

Note:1. Mounted on glass epoxy PC board with 1.3mm² solder pad.
 2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C..

RATINGS AND CHARACTERISTIC CURVES KBP3005K THRU KBP310K

Fig. 1 Forward Current Derating Curve

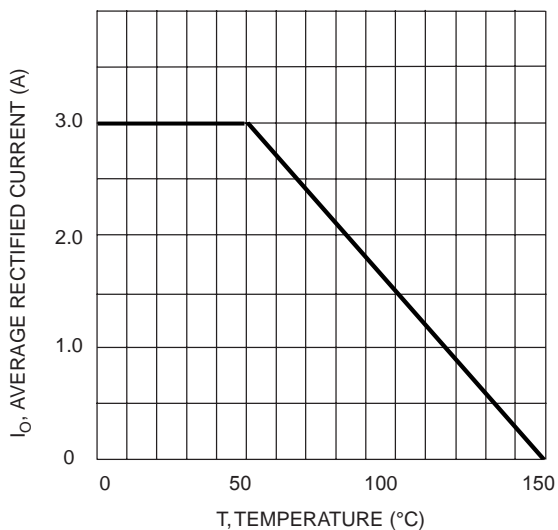


Fig. 2 Typical Fwd Characteristics

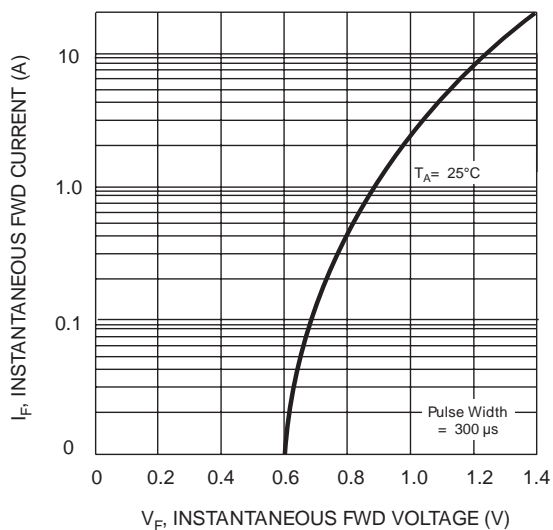


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

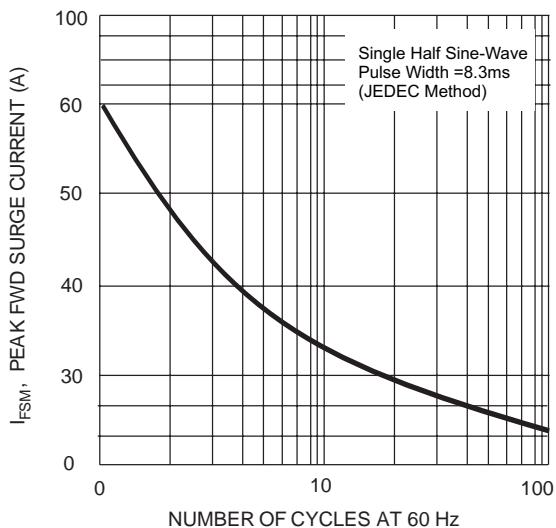
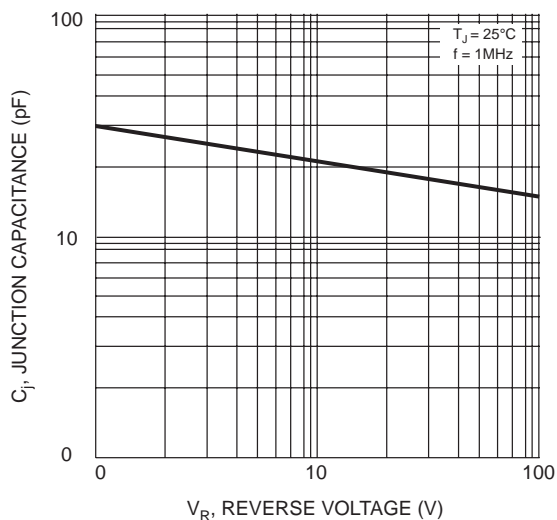


Fig. 4 Typical Junction Capacitance



The cruve graph is for reference only, can't be the basis for judgment(曲线图仅供参考)!