

# TDS:EMIC

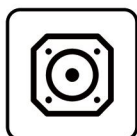
## 拓 電 半 導 體

自主封測 品質把控 售後保障

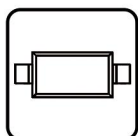
WEB | [WWW.TDSEMIC.COM](http://WWW.TDSEMIC.COM)



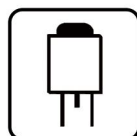
電源管理



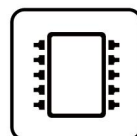
顯示驅動



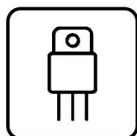
二三極管



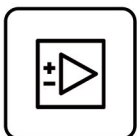
LDO穩壓器



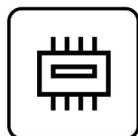
觸摸芯片



MOS管



運算放大器



存儲芯片



MCU



串口通信

## KBP210-TD

產品規格說明書

### Reverse Voltage - 50 to 1000 Volts Forward Current - 2.0Amperes SINGLE BRIDGE RECTIFIERS

#### Features

- ◆ Glass Passivated Chip Junction
- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ Ideal for printed circuit boards
- ◆ Low reverse leakage
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed:
- ◆ 260°C/10 seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension

#### Mechanical Data

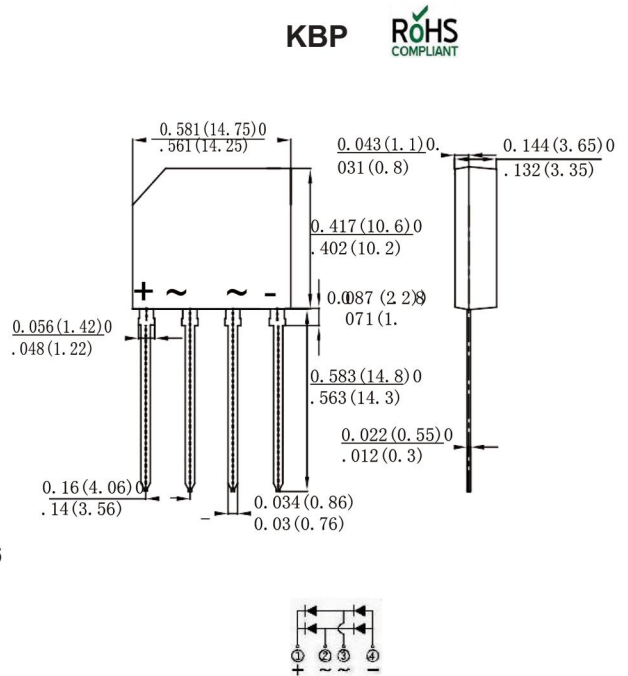
**Case :** JEDEC KBP Molded plastic body

**Terminals :** Solder plated, solderable per MIL-STD-750, Method 2026

**Polarity :** Polarity symbol marking on body

**Mounting Position :** Any

**Weight :** 0.0693 ounce, 1.95 grams



Dimensions in inches and (millimeters)

#### 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%.

| Parameter                                                                                                 | SYMBOLS                                               | CRK<br>KBP2005 | CRK<br>KBP201 | CRK<br>KBP202 | CRK<br>KBP204 | CRK<br>KBP206 | CRK<br>KBP208 | CRK<br>KBP210 | UNITS               |
|-----------------------------------------------------------------------------------------------------------|-------------------------------------------------------|----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------------|
| Marking Code                                                                                              |                                                       |                |               |               |               |               |               |               |                     |
| Maximum repetitive peak reverse voltage                                                                   | $V_{RRM}$                                             | 50             | 100           | 200           | 400           | 600           | 800           | 1000          | V                   |
| Maximum RMS voltage                                                                                       | $V_{RMS}$                                             | 35             | 70            | 140           | 280           | 420           | 560           | 700           | V                   |
| Maximum DC blocking voltage                                                                               | $V_{DC}$                                              | 50             | 100           | 200           | 400           | 600           | 800           | 1000          | V                   |
| Maximum average forward output rectified current at $T_c=50^\circ\text{C}$ (Note 2)                       | $I_{(AV)}$                                            | 2.0            |               |               |               |               |               |               | A                   |
| Peak forward surge current<br>8.3ms single half sine-wave superimposed<br>on rated load (JEDEC Method)    | $I_{FSM}$                                             | 55             |               |               |               |               |               |               | A                   |
| Maximum instantaneous forward voltage drop<br>per bridge element at 2.0A                                  | $V_F$                                                 | 1.1            |               |               |               |               |               |               | V                   |
| Maximum DC reverse current $T_A=25^\circ\text{C}$<br>at rated DC blocking voltage $T_A=125^\circ\text{C}$ | $I_R$                                                 | 5<br>500       |               |               |               |               |               |               | $\mu\text{A}$<br>mA |
| Typical Junction Capacitance (Note 1)                                                                     | $C_J$                                                 | 25             |               |               |               |               |               |               | pF                  |
| Typical Thermal Resistance (Note 2)                                                                       | $R_{\theta JA}$<br>$R_{\theta JC}$<br>$R_{\theta JL}$ | 40<br>10<br>18 |               |               |               |               |               |               | $^\circ\text{C/W}$  |
| $I^2t$ Rating for fusing ( $3\text{ms} \leq t \leq 8.3\text{ms}$ )                                        | $I^2t$                                                | 12.55          |               |               |               |               |               |               |                     |
| Operating junction temperature range                                                                      | $T_J$                                                 | -55 to +150    |               |               |               |               |               |               | $^\circ\text{C}$    |
| storage temperature range                                                                                 | $T_{STG}$                                             | -55 to +150    |               |               |               |               |               |               | $^\circ\text{C}$    |

NOTES:

1. Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts.

2. Thermal Resistance Junction to Case, Lead and Ambient.

### Reverse Voltage - 50 to 1000 Volts Forward Current - 2.0Amperes

Fig.1 Forward Current Derating Curve

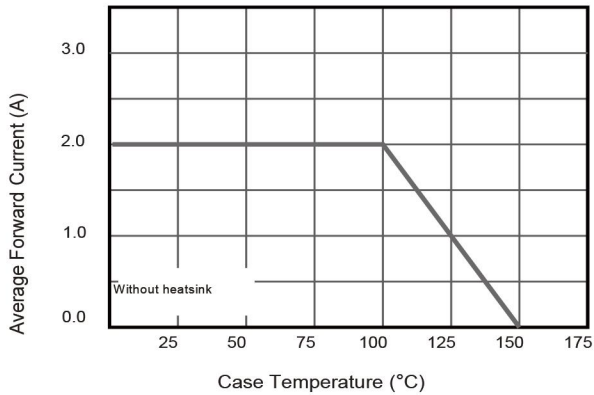


Fig.2 Typical Instantaneous Reverse Characteristics

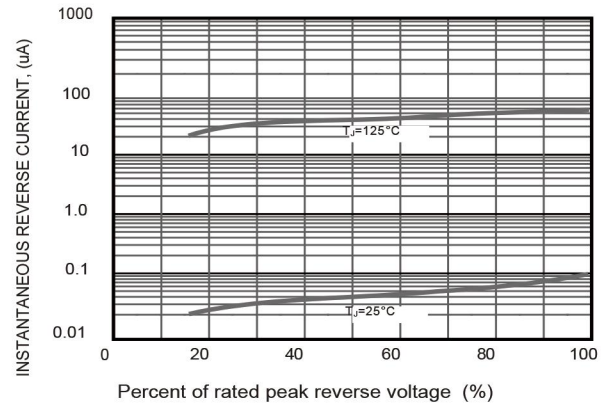


Fig.3 Typical Forward Characteristic

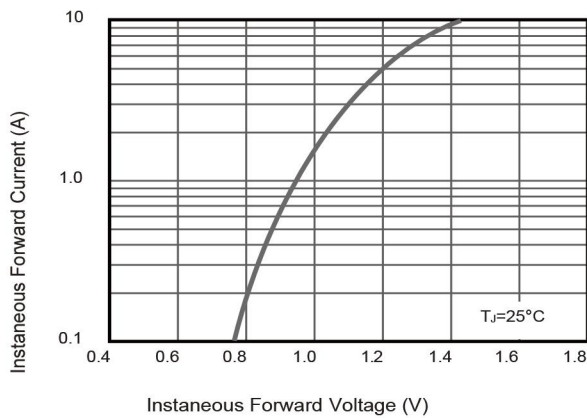


Fig.4 Typical Junction Capacitance

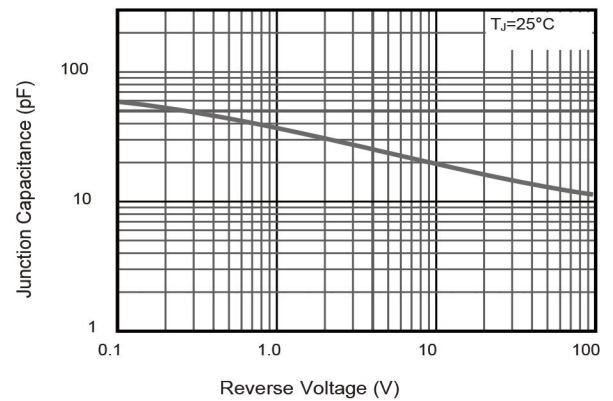


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

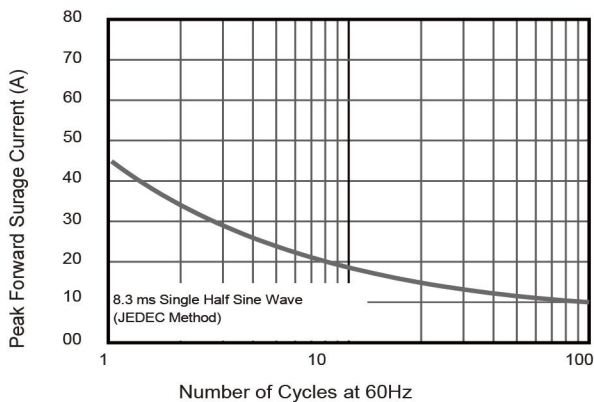


Fig.6- Typical Transient Thermal Impedance

