



KBU25005 THRU KBU2510

Reverse Voltage - 50 to 1000 Volts Forward Current - 25.0 Amperes

SILICON BRIDGE RECTIFIERS

Features

- ◆ Ideal for printed circuit board
- ◆ Reliable low cost construction utilizing molded plastic technique
- ◆ Plastic material has U/L lammability classification 94V-0
- ◆ High temperature soldering guaranteed:
260°C/10 seconds, 0.375"(9.5mm) lead length,
5 lbs. (2.3kg) tension

Mechanical Data

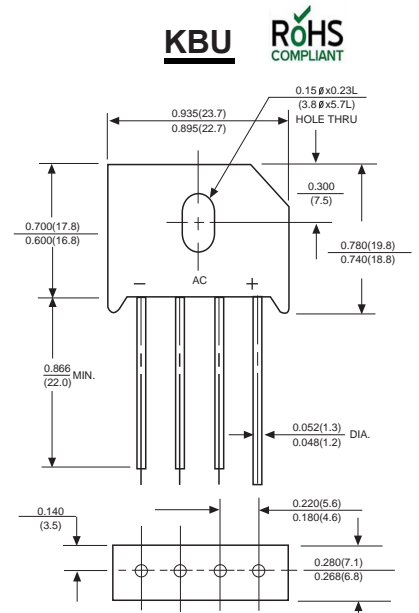
Case : JEDEC KBU Molded plastic body

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

Polarity : Polarity symbol marking on body

Mounting Position : Any

Weight : 0.27ounce, 7.59grams



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 | KBU 25005 | KBU 2501 | KBU 2502 | KBU 2504 | KBU 2506 | KBU 2508 | KBU 2510 | UNITS |
|---|-----------|-------------------------|--------------|--------------|--------------|--------------|--------------|--------------|------------------|
| | | MDD KBU 25005 | MDD KBU 2501 | MDD KBU 2502 | MDD KBU 2504 | MDD KBU 2506 | MDD KBU 2508 | MDD KBU 2510 | |
| 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 (with heatsink NOTE 2) Rectified current @ $T_c=100^\circ\text{C}$ (without heatsink) | I_{AV} | 25.0 | | | | | | | A |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) | I_{FSM} | 400.0 | | | | | | | A |
| Maximum forward voltage at 12.5A DC | V_F | 1.0 | | | | | | | V |
| 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 |
| 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. Device mounted on 100mm*100mm*1.6mm Cu plate heatsink



KBU25005 THRU KBU2510

Reverse Voltage - 50 to 1000 Volts Forward Current - 25.0 Amperes

Ratings And Characteristic Curves

FIG.1-MAXIMUM FORWARD SURGE CURRENT

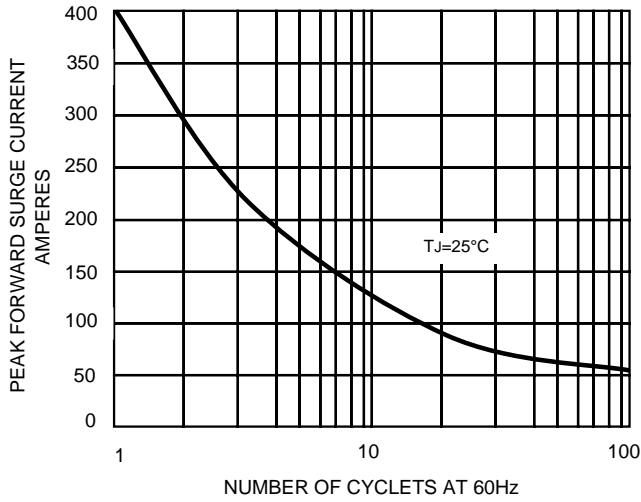


FIG. 2 – DERATING CURVE OUTPUT RECTIFIED CURRENT

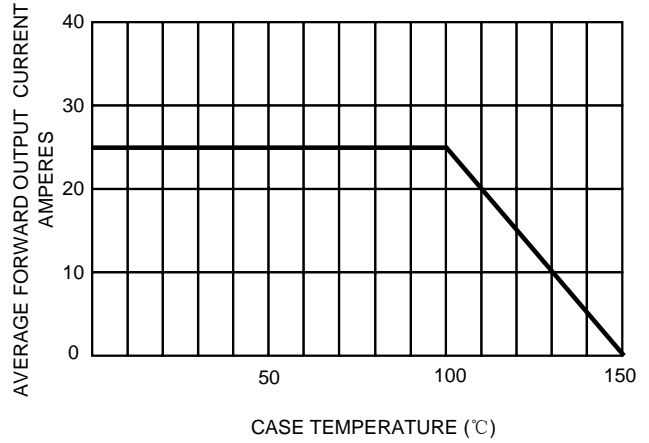


FIG.3- TYPICAL FORWARD CHARACTERISTICS

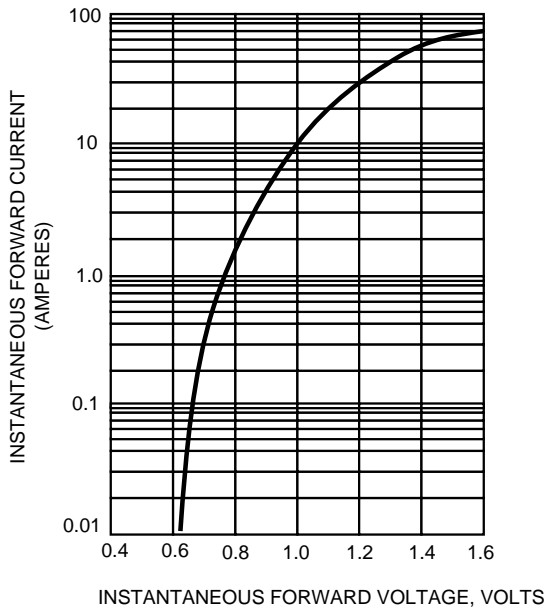
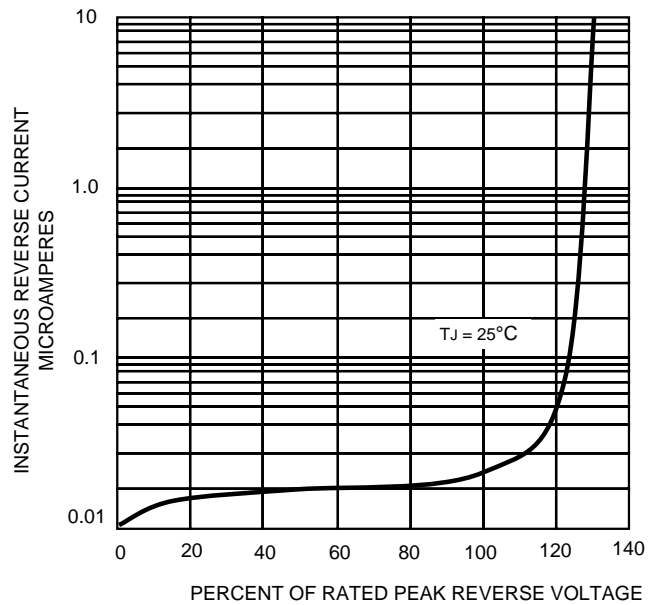


FIG.4- TYPICAL REVERSE CHARACTERISTICS



The curve above is for reference only.