

GBP6005~GBP610

Single Phase 6.0Amp Glass passivated Bridge Rectifiers

Features

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ Idea for printed circuit board
- ◆ Glass passivated Junction chip
- ◆ Low reverse leakage
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed 250°C/10 seconds at terminals

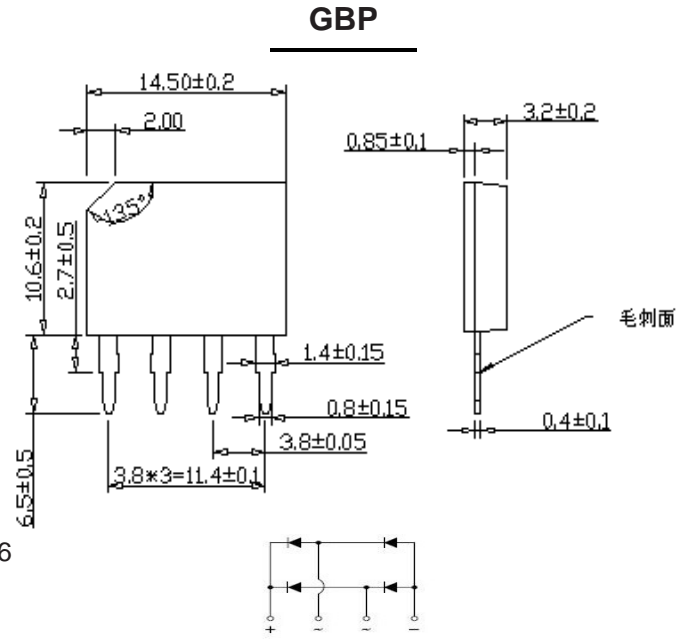
Mechanical Data

Case : Molded plastic body

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

Polarity : Polarity symbol marking on body

Mounting Position : Any



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 | GBP 6005 | GBP 601 | GBP 602 | GBP 604 | GBP 606 | GBP 608 | GBP 610 | UNITS |
|---|-----------------|-------------|---------|---------|---------|---------|---------|---------|--------------|
| 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 rectified current with heatsink | $I_{(AV)}$ | 6.0 | | | | | | | A |
| Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load | I_{FSM} | 175.0 | | | | | | | A |
| Rating for fusing ($t=8.3ms, T_A=25^\circ C$) | I_t^2 | 127 | | | | | | | A^2s |
| Maximum instantaneous forward voltage at 3.0A | V_F | 1.0 | | | | | | | V |
| Maximum DC reverse current $T_A = 25^\circ C$ at rated DC blocking voltage $T_A = 125^\circ C$ | I_R | 5.0 500 | | | | | | | μA |
| Typical junction capacitance (Note 1) | C_J | 50.0 | | | | | | | pF |
| Typical thermal resistance(with heatsink) (Note 2) | $R_{\theta JC}$ | 2.0 | | | | | | | $^\circ C/W$ |
| Operating junction and storage temperature range | T_J, T_{STG} | -55 to +150 | | | | | | | $^\circ C$ |

Note: 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2. Device mounted on 75mm*75mm*1.6mm Cu plate heatsink.

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Ratings And Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

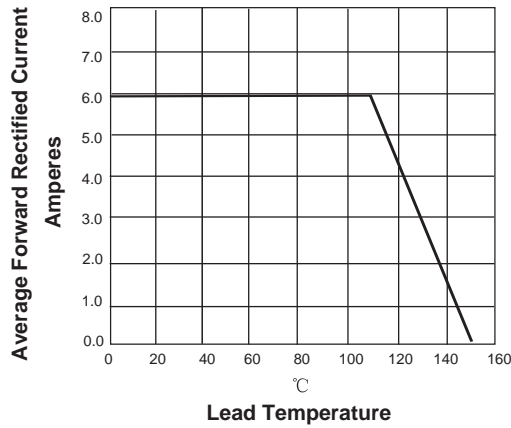


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

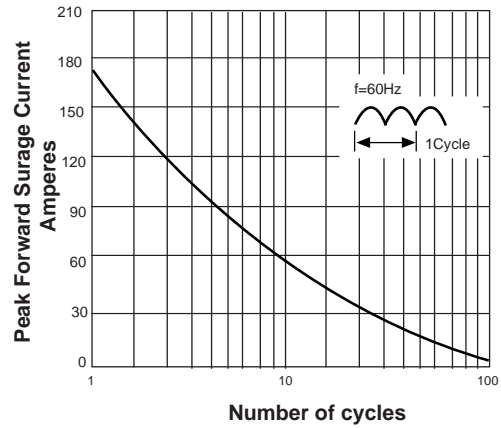


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

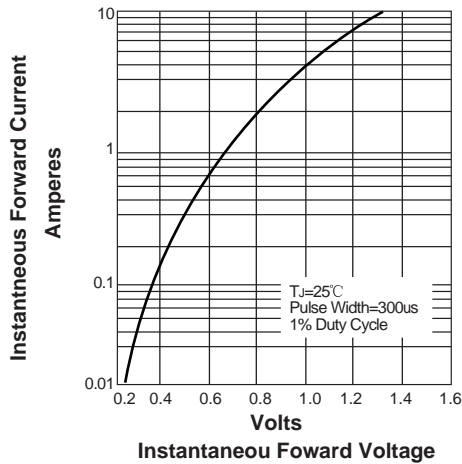


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS

