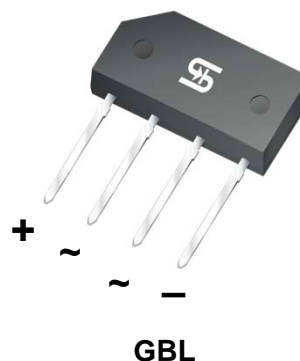


4A, 50V - 1000V Glass Passivated Single Phase Bridge Rectifiers

FEATURES

- Glass passivated junction
- Ideal for printed circuit board
- High case dielectric strength
- Typical IR less than 0.1μA
- UL Recognized File # E-326243
- Compliant to RoHS Directive 2011/65/EU and in accordance to WEEE 2002/96/EC
- Halogen-free according to IEC 61249-2-21



MECHANICAL DATA

Case: GBL

Molding compound, UL flammability classification rating 94V-0

Part no. with suffix "H" means AEC-Q101 qualified

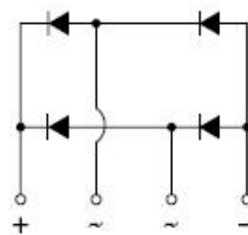
Packing code with suffix "G" means green compound (halogen-free)

Terminal: Matte tin plated leads, solderable per JESD22-B102

Meet JESD 201 class 2 whisker test

Polarity: As marked

Weight: 2 g (approximately)



| MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T _A =25°C unless otherwise noted) | | | | | | | | | |
|---|--|---------------|-----------|-----------|-----------|-----------|-----------|-----------|------------------|
| PARAMETER | SYMBOL | GBL 005 | GBL 01 | GBL 02 | GBL 04 | GBL 06 | GBL 08 | GBL 10 | Unit |
| 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 @T _C =50°C @T _A =40°C | I _{F(AV)} | 4 3 | | | | | | | A |
| Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load | I _{FSM} | 150 | | | | | | | A |
| Rating for fusing (t<8.3ms) | I ² t | 93 | | | | | | | A ² s |
| Maximum instantaneous forward voltage (Note 1) @ 2 A @ 4 A | V _F | 1.0 1.1 | | | | | | | V |
| Maximum reverse current @ rated V _R T _J =25°C T _J =125°C | I _R | 5 500 | | | | | | | μA |
| Typical junction capacitance | C _J | 95 | | | | 40 | | | pF |
| Typical thermal resistance | R _{θJC} R _{θJL} R _{θJA} | 8 13 32 | | | | | | | °C/W |
| Operating junction temperature range | T _J | - 55 to +150 | | | | | | | °C |
| Storage temperature range | T _{STG} | - 55 to +150 | | | | | | | °C |

Note 1: Pulse test with PW=300μs, 1% duty cycle

| ORDERING INFORMATION | | | | | |
|----------------------|-----------------|--------------|-------------------------|---------|---------------------|
| PART NO. | PART NO. SUFFIX | PACKING CODE | PACKING CODE SUFFIX (*) | PACKAGE | PACKING |
| GBLxx (Note 1) | H | C2 | G | GBL | 25 / Tube |
| | | X0 | | GBL | 25 / Tube / Forming |
| | | D2 | | GBL | 25 / Tube |

Note 1: "xx" defines voltage from 50V (GBL005) to 1000V (GBL10)

*: Optional available

| EXAMPLE | | | | | |
|---------------|----------|-----------------|--------------|---------------------|--------------------------------------|
| PREFERRED P/N | PART NO. | PART NO. SUFFIX | PACKING CODE | PACKING CODE SUFFIX | DESCRIPTION |
| GBL10HC2G | GBL10 | H | C2 | G | AEC-Q101 qualified Green compound |

RATINGS AND CHARACTERISTICS CURVES

(T_A=25°C unless otherwise noted)

FIG.1 FORWARD CURRENT DERATING CURVE

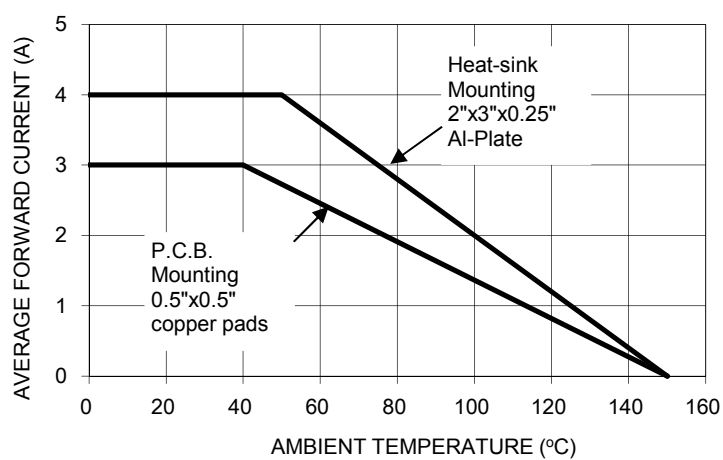


FIG. 2 TYPICAL REVERSE CHARACTERISTICS

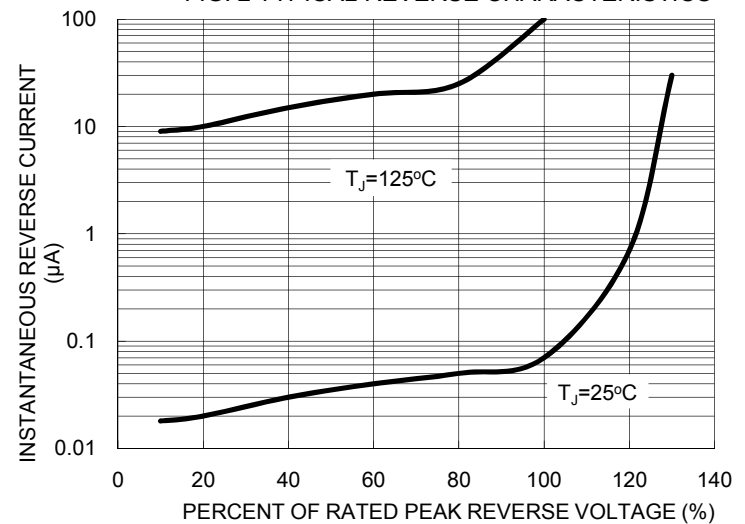


FIG. 3 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

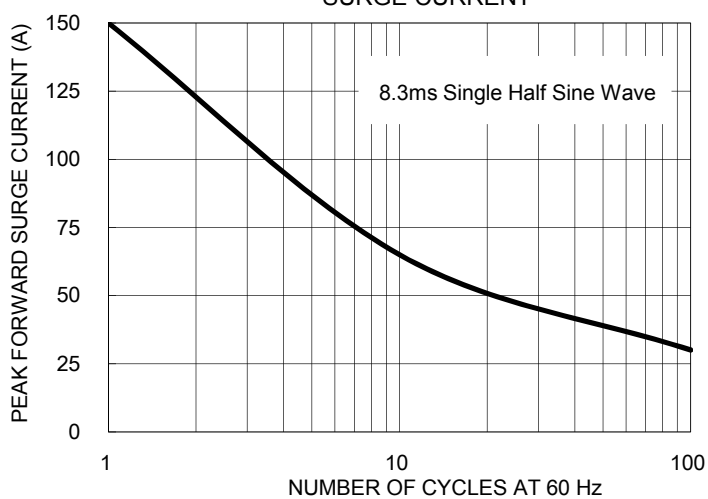


FIG. 4 TYPICAL FORWARD CHARACTERISTICS

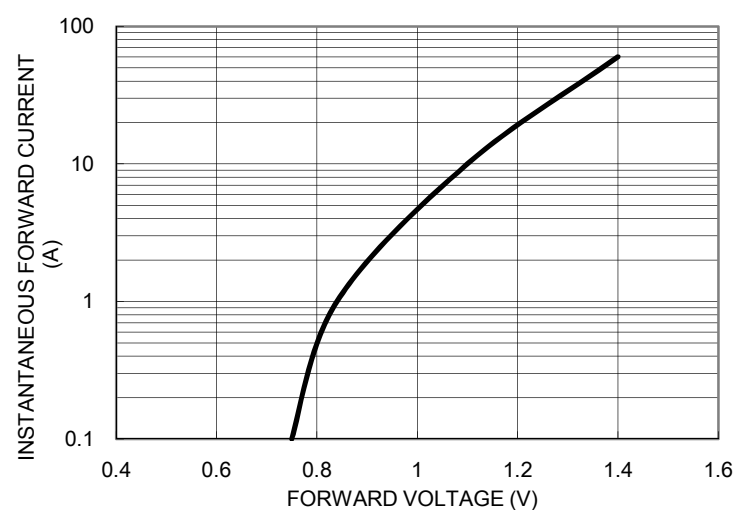
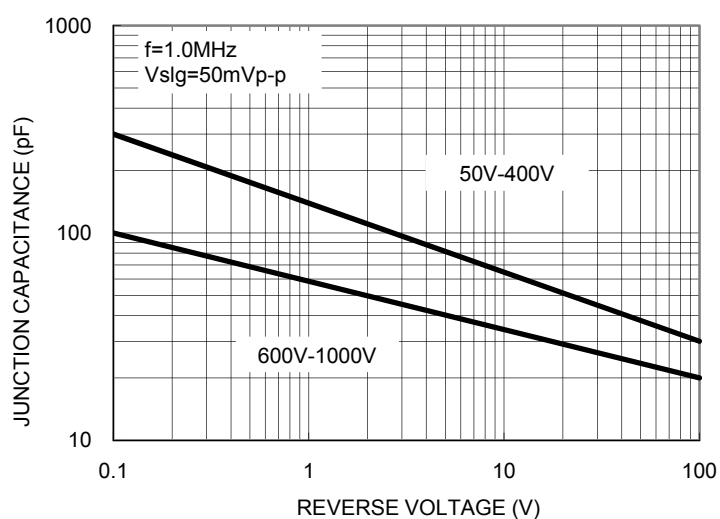
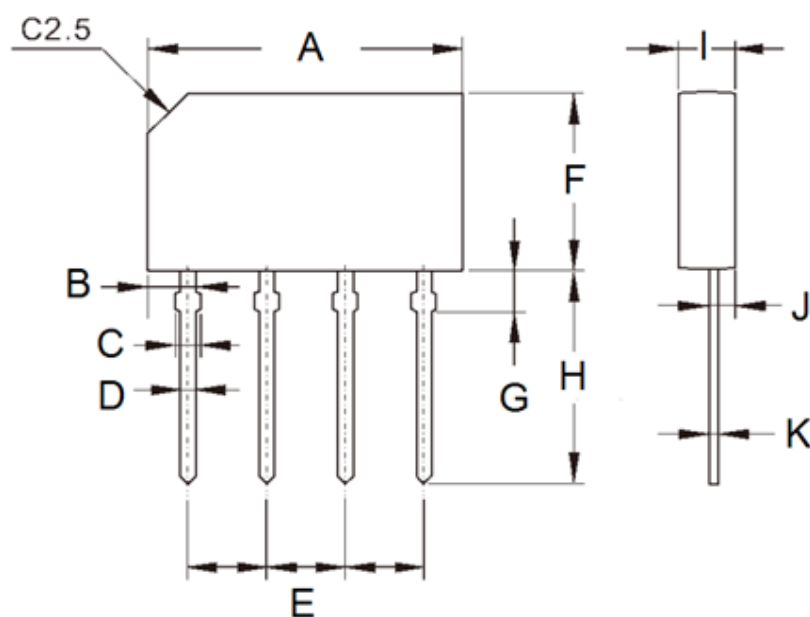


FIG. 5 TYPICAL JUNCTION CAPACITANCE



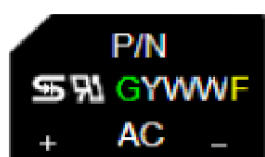
PACKAGE OUTLINE DIMENSIONS

GBL



| DIM. | Unit (mm) | | Unit (inch) | |
|------|-----------|-------|-------------|-------|
| | Min | Max | Min | Max |
| A | 19.70 | 20.30 | 0.776 | 0.799 |
| B | 2.30 | 2.70 | 0.091 | 0.106 |
| C | 1.30 | 2.00 | 0.051 | 0.079 |
| D | 0.90 | 1.10 | 0.035 | 0.043 |
| E | 4.80 | 5.20 | 0.189 | 0.205 |
| F | 10.70 | 11.30 | 0.421 | 0.445 |
| G | 2.30 | 2.70 | 0.091 | 0.106 |
| H | 13.00 | 14.00 | 0.512 | 0.551 |
| I | 3.30 | 3.70 | 0.130 | 0.146 |
| J | 0.80 | 1.20 | 0.031 | 0.047 |
| K | 0.40 | 0.60 | 0.016 | 0.024 |

MARKING DIAGRAM



P/N = Specific Device Code
G = Green Compound
YWW = Date Code
F = Factory Code

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