

2A, 1000V Fast Recovery Glass Passivated Bridge Rectifier

FEATURES

- Ideal for automated placement
- Reliable low cost construction utilizing molded plastic technique
- High surge current capability
- Compliant to RoHS Directive 2011/65/EU and in accordance to WEEE 2002/96/EC
- Halogen-free according to IEC 61249-2-21



DBLS

MECHANICAL DATA

Case: Molded plastic body

Molding compound, UL flammability classification rating 94V-0

Moisture sensitivity level: level 1, per J-STD-020

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

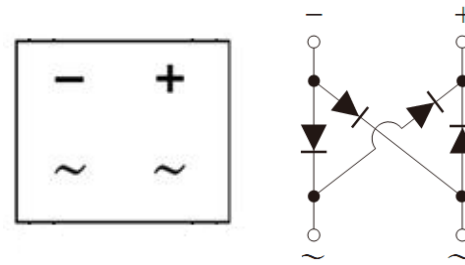
Packing code with suffix "G" means green compound (halogen-free)

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

Meet JESD 201 class 2 whisker test

Polarity: Polarity as marked on the body

Weight: 0.36 g (approximately)



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise noted)

| PARAMETER | SYMBOL | RDBLS207G | UNIT |
|---|--------------------------------------|--------------|------------------|
| Maximum repetitive peak reverse voltage | V _{RRM} | 1000 | V |
| Maximum RMS voltage | V _{RMS} | 700 | V |
| Maximum DC blocking voltage | V _{DC} | 1000 | V |
| Maximum average forward rectified current | I _{F(AV)} | 2 | A |
| Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load | I _{FSM} | 50 | A |
| Rating for fusing (t<8.3ms) | I ² t | 10.3 | A ² s |
| Maximum instantaneous forward voltage (Note 1) I _F = 2 A | V _F | 1.15 | V |
| Maximum reverse recovery time (Note 2) | t _{rr} | 300 | ns |
| Maximum reverse current @ rated V _R T _J =25°C T _J =125°C | I _R | 2 500 | μA |
| Typical thermal resistance | R _{θJL} R _{θJA} | 22 62 | °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

Note 2: Reverse recovery time test conditions: I_F=0.5A, I_R=1.0A, I_{RR}=0.25A

ORDERING INFORMATION

| PART NO. | PART NO. SUFFIX | PACKING CODE | PACKING CODE SUFFIX (*) | PACKAGE | PACKING |
|-----------|-----------------|--------------|-------------------------|---------|------------------------|
| RDBLS207G | H | C1 | G | DBLS | 50 / Tube |
| | | RD | | | 1,500 / 13" Paper reel |

*: Optional available

EXAMPLE

| PREFERRED P/N | PART NO. | PART NO. SUFFIX | PACKING CODE | PACKING CODE SUFFIX | DESCRIPTION |
|---------------|-----------|-----------------|--------------|---------------------|-----------------------------------|
| RDBLS207GHRDG | RDBLS207G | H | RD | G | AEC-Q101 qualified Green compound |

RATINGS AND CHARACTERISTICS CURVES

($T_A=25^\circ\text{C}$ unless otherwise noted)

FIG. 1 FORWARD CURRENT DERATING CURVE

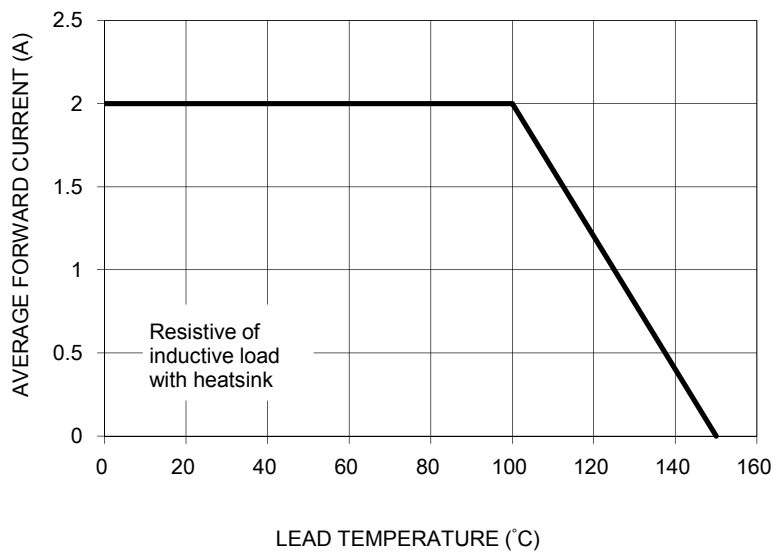


FIG. 2 TYPICAL REVERSE CHARACTERISTICS

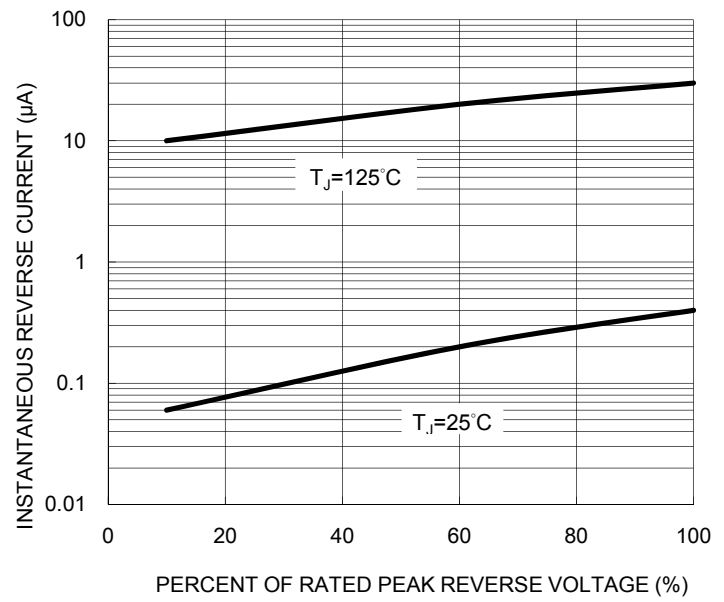


FIG. 3 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

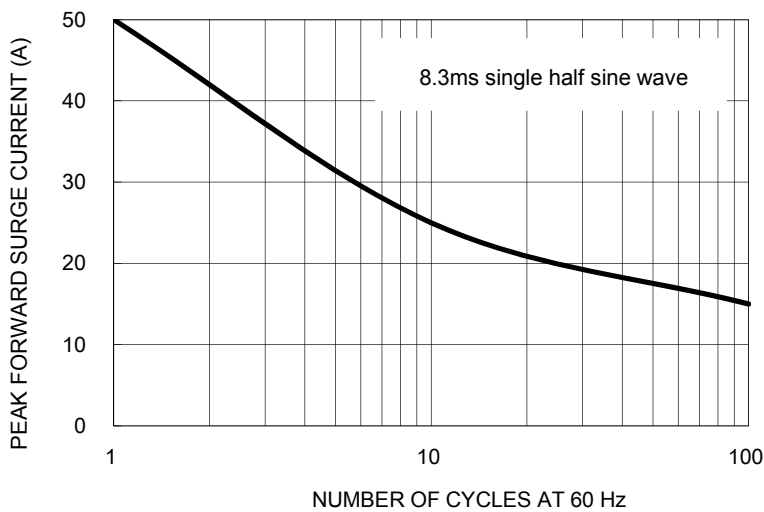


FIG. 4 TYPICAL FORWARD CHARACTERISTICS

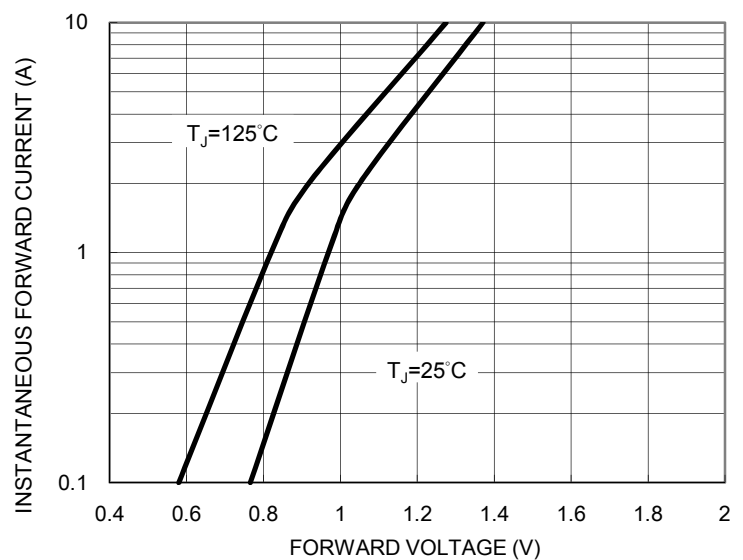
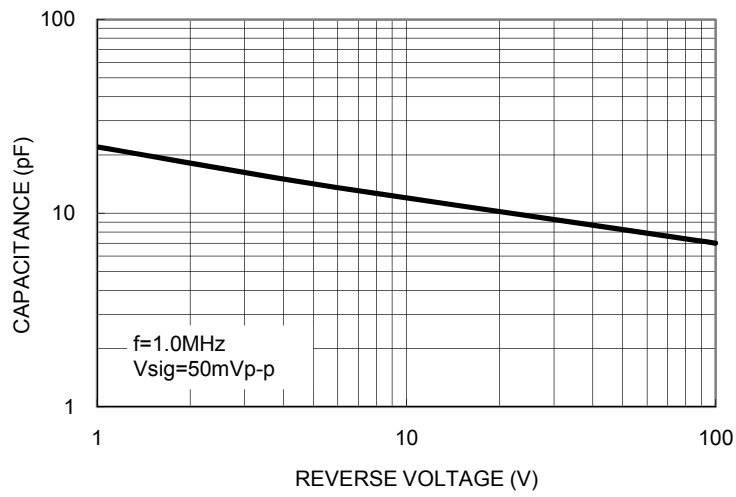
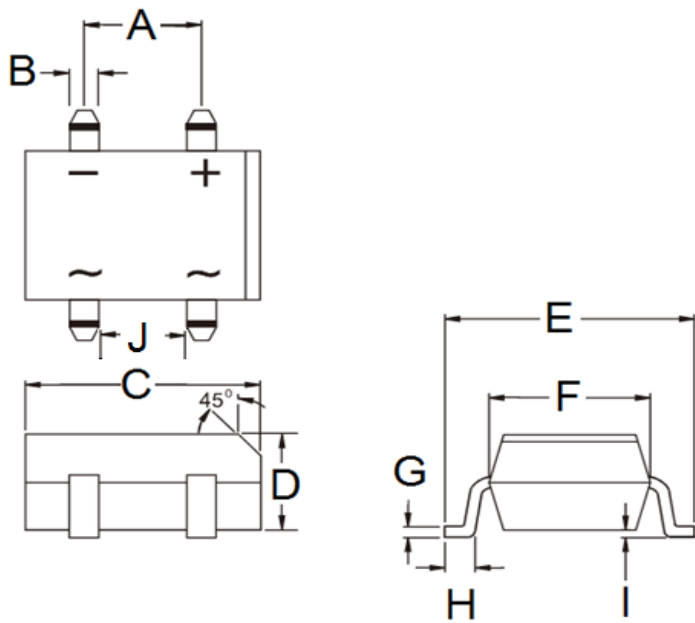


FIG. 5 TYPICAL JUNCTION CAPACITANCE



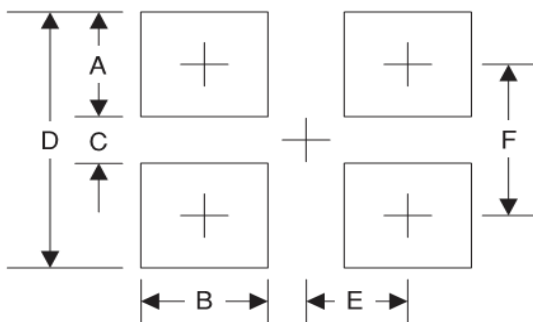
PACKAGE OUTLINE DIMENSIONS

DBLS



| DIM. | Unit (mm) | | Unit (inch) | |
|------|-----------|-------|-------------|-------|
| | Min | Max | Min | Max |
| A | 5.00 | 5.20 | 0.197 | 0.205 |
| B | 1.02 | 1.20 | 0.040 | 0.047 |
| C | 8.13 | 8.51 | 0.320 | 0.335 |
| D | 2.40 | 2.60 | 0.094 | 0.102 |
| E | 9.80 | 10.30 | 0.386 | 0.406 |
| F | 6.20 | 6.50 | 0.244 | 0.256 |
| G | 0.22 | 0.33 | 0.009 | 0.013 |
| H | 1.02 | 1.53 | 0.040 | 0.060 |
| I | 0.076 | 0.33 | 0.003 | 0.013 |
| J | 3.90 | 4.10 | 0.154 | 0.161 |

SUGGESTED PAD LAYOUT



| Symbol | Unit (mm) | Unit (inch) |
|--------|-----------|-------------|
| A | 2.3 | 0.091 |
| B | 1.3 | 0.051 |
| C | 6.9 | 0.272 |
| D | 11.5 | 0.453 |
| E | 2.6 | 0.102 |
| F | 9.2 | 0.362 |

MARKING DIAGRAM



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

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