

2A, 50V - 800V Glass Passivated Single-Phase Bridge Rectifiers

FEATURES

- Ideal for printed circuit board
- High case dielectric strength
- High surge current capability
- 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



GBL



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 | D2SB 05 | D2SB 10 | D2SB 20 | D2SB 40 | D2SB 60 | D2SB 80 | UNIT |
| Maximum repetitive peak reverse voltage | V _{RRM} | 50 | 100 | 200 | 400 | 600 | 800 | V |
| Maximum RMS voltage | V _{RMS} | 35 | 70 | 140 | 280 | 420 | 560 | V |
| Maximum DC blocking voltage | V _{DC} | 50 | 100 | 200 | 400 | 600 | 800 | 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} | 80 | | | | | | A |
| Rating of fusing (t<8.3ms) | I ² t | 26 | | | | | | A ² s |
| Maximum instantaneous forward voltage (Note 1) I _F = 2 A | V _F | 1.1 | | | | | | V |
| Maximum reverse current @ rated V _R | I _R | 10 | | | | | | μA |
| | | 500 | | | | | | |
| Typical thermal resistance | R _{θJL} | 10 | | | | | | °C/W |
| | R _{θJA} | 47 | | | | | | |
| 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 |
|--------------------|-----------------|--------------|-------------------------|---------|---------------------|
| D2SBxx (Note 1) | H | C2 | G | GBL | 25 / Tube |
| | | X0 | | GBL | 25 / Tube / Forming |
| | | D2 | | GBL | 25 / Tube |

Note 1: "xx" defines voltage from 50V (D2SB05) to 800V (D2SB80)

*: Optional available

EXAMPLE

| PREFERRED P/N | PART NO. | PART NO. SUFFIX | PACKING CODE | PACKING CODE SUFFIX | DESCRIPTION |
|---------------|----------|-----------------|--------------|---------------------|--------------------------------------|
| D2SB80HC2G | D2SB80 | H | C2 | G | AEC-Q101 qualified Green compound |

RATINGS AND CHARACTERISTICS CURVES

(T_A=25°C unless otherwise noted)

FIG.1 MAXIMUM 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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