

## 2A, 50V - 1400V Glass Passivated Bridge Rectifiers

### FEATURES

- Ideal for automated placement
- Reliable low cost construction utilizing molded plastic technique
- High surge current capability
- UL Recognized File # E-326854
- 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

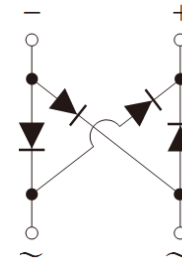
Packing code with suffix "G" means green compound (halogen-free)

**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 <sub>A</sub> =25°C unless otherwise noted)    |                                      |              |           |           |           |           |           |           |           |           |                  |      |
|---|--------------------------------------|--------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------------|------|
| PARAMETER   | SYMBOL                               | DBLS 201G    | DBLS 202G | DBLS 203G | DBLS 204G | DBLS 205G | DBLS 206G | DBLS 207G | DBLS 208G | DBLS 209G | UNIT             |      |
| Maximum repetitive peak reverse voltage   | V <sub>RRM</sub>                     | 50           | 100       | 200       | 400       | 600       | 800       | 1000      | 1200      | 1400      | V                |      |
| Maximum RMS voltage   | V <sub>RMS</sub>                     | 35           | 70        | 140       | 280       | 420       | 560       | 700       | 840       | 980       | V                |      |
| Maximum DC blocking voltage   | V <sub>DC</sub>                      | 50           | 100       | 200       | 400       | 600       | 800       | 1000      | 1200      | 1400      | V                |      |
| Maximum average forward rectified current   | I <sub>F(AV)</sub>                   | 2            |           |           |           |           |           |           |           |           | A                |      |
| Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load             | I <sub>FSM</sub>                     | 50           |           |           |           |           |           |           |           |           | A                |      |
| Rating for fusing (t<8.3ms)   | i <sup>2</sup> t                     | 10.3         |           |           |           |           |           |           |           |           | A <sup>2</sup> s |      |
| Maximum instantaneous forward voltage (Note 1)<br>I <sub>F</sub> = 2 A                          | V <sub>F</sub>                       | 1.15         |           |           |           |           |           | 1.30      |           |           | V                |      |
| Maximum reverse current @ rated V <sub>R</sub><br>T <sub>J</sub> =25°C<br>T <sub>J</sub> =125°C | I <sub>R</sub>                       | 2            |           |           |           |           | 500       |           |           |           |                  | μA   |
| Typical thermal resistance  | R <sub>θJL</sub><br>R <sub>θJA</sub> | 15           |           |           |           |           | 40        |           |           |           |                  | °C/W |
| Operating junction temperature range  | T <sub>J</sub>                       | - 55 to +150 |           |           |           |           |           |           |           |           | °C               |      |
| Storage temperature range   | T <sub>STG</sub>                     | - 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                |
|----------------------|-----------------|--------------|-------------------------|---------|------------------------|
| DBLS20xG<br>(Note 1) | H               | C1           | G                       | DBLS    | 50 / TUBE              |
|                      |                 | RD           |                         |         | 1,500 / 13" Paper reel |

Note 1: "x" defines voltage from 50V (DBLS201G) to 1400V (DBLS209G)

\*: Optional available

**EXAMPLE**

| PREFERRED P/N | PART NO. | PART NO. SUFFIX | PACKING CODE | PACKING CODE SUFFIX | DESCRIPTION                       |
|---------------|----------|-----------------|--------------|---------------------|-----------------------------------|
| DBLS207GHRDG  | DBLS207G | H               | RD           | G                   | AEC-Q101 qualified Green compound |

**RATINGS AND CHARACTERISTICS CURVES**

(T<sub>A</sub>=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

**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

## Notice

Specifications of the products displayed herein are subject to change without notice. TSC or anyone on its behalf, assumes no responsibility or liability for any errors or inaccuracies.

Information contained herein is intended to provide a product description only. No license, express or implied, to any intellectual property rights is granted by this document. Except as provided in TSC's terms and conditions of sale for such products, TSC assumes no liability whatsoever, and disclaims any express or implied warranty, relating to sale and/or use of TSC products including liability or warranties relating to fitness for a particular purpose, merchantability, or infringement of any patent, copyright, or other intellectual property right.

The products shown herein are not designed for use in medical, life-saving, or life-sustaining applications. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify TSC for any damages resulting from such improper use or sale.



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

**Телефон:** 8 (812) 309 58 32 (многоканальный)

**Факс:** 8 (812) 320-02-42

**Электронная почта:** [org@eplast1.ru](mailto:org@eplast1.ru)

**Адрес:** 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.