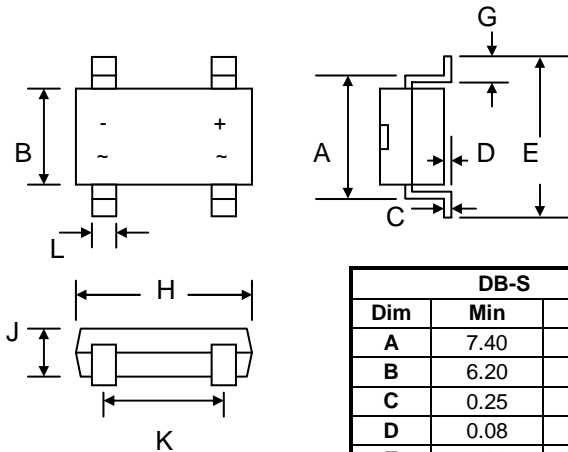


## DB151S – DB157S

### 1.5A SURFACE MOUNT GLASS PASSIVATED BRIDGE RECTIFIER

### Features

- Glass Passivated Die Construction
- Low Forward Voltage Drop
- High Current Capability
- High Surge Current Capability
- Designed for Surface Mount Application
- Plastic Material – UL Recognition Flammability Classification 94V-O



| DB-S                 |      |       |
|----------------------|------|-------|
| Dim                  | Min  | Max   |
| A                    | 7.40 | 7.90  |
| B                    | 6.20 | 6.50  |
| C                    | 0.25 | —     |
| D                    | 0.08 | 0.33  |
| E                    | 9.30 | 10.30 |
| G                    | 1.02 | 1.53  |
| H                    | 8.00 | 8.51  |
| J                    | 2.15 | 3.40  |
| K                    | 5.00 | 5.20  |
| L                    | 0.90 | 1.20  |
| All Dimensions in mm |      |       |

### Mechanical Data

- Case: DB -S, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: As Marked on Case
- Weight: 1.0 grams (approx.)
- Mounting Position: Any
- Marking: Type Number
- RoHS /Lead Free Version

### Maximum Ratings and Electrical Characteristics @T<sub>A</sub>=25°C unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

| Characteristic  | Symbol                               | DB          | DB   | DB   | DB   | DB   | DB   | DB   | Unit |
|---|--------------------------------------|-------------|------|------|------|------|------|------|------|
|   |                                      | 151S        | 152S | 153S | 154S | 155S | 156S | 157S |      |
| Peak Repetitive Reverse Voltage   | V <sub>RRM</sub>                     |             |      |      |      |      |      |      | V    |
| Working Peak Reverse Voltage  | V <sub>RWM</sub>                     | 50          | 100  | 200  | 400  | 600  | 800  | 1000 |      |
| DC Blocking Voltage   | V <sub>R</sub>                       |             |      |      |      |      |      |      |      |
| RMS Reverse Voltage   | V <sub>R(RMS)</sub>                  | 35          | 70   | 140  | 280  | 420  | 560  | 700  | V    |
| Average Rectified Output Current @T <sub>A</sub> = 40°C   | I <sub>O</sub>                       | 1.5         |      |      |      |      |      |      | A    |
| Non-Repetitive Peak Forward Surge Current 8.3ms<br>Single half sine-wave superimposed on rated load<br>(JEDEC Method) | I <sub>FSM</sub>                     | 50          |      |      |      |      |      |      | A    |
| Forward Voltage per element @I <sub>F</sub> = 1.5A  | V <sub>FM</sub>                      | 1.1         |      |      |      |      |      |      | V    |
| Peak Reverse Current @T <sub>A</sub> = 25°C<br>At Rated DC Blocking Voltage @T <sub>A</sub> = 125°C                   | I <sub>RM</sub>                      | 500         |      |      |      |      |      |      | μA   |
| Typical Junction Capacitance per element (Note 1)   | C <sub>j</sub>                       | 25          |      |      |      |      |      |      | pF   |
| Typical Thermal Resistance per leg (Note 2)   | R <sub>θJA</sub><br>R <sub>θJL</sub> | 40<br>15    |      |      |      |      |      |      | °C/W |
| Operating and Storage Temperature Range   | T <sub>j</sub> , T <sub>STG</sub>    | -65 to +150 |      |      |      |      |      |      | °C   |

Note: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.  
2. Mounted on PC board with 13mm<sup>2</sup> copper pad.

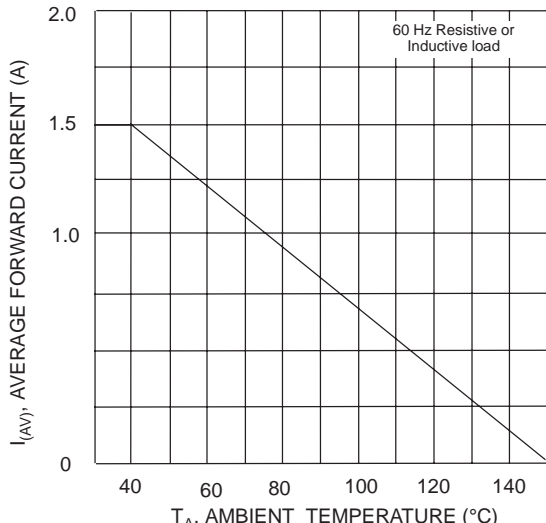


Fig. 1 Output Current Derating Curve

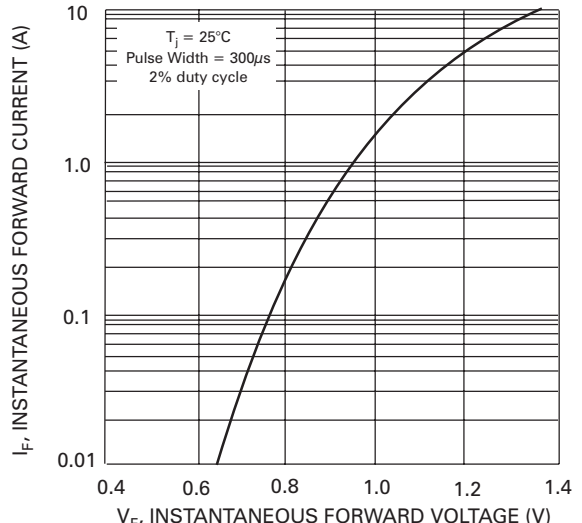


Fig. 2 Typ Forward Characteristics (per element)

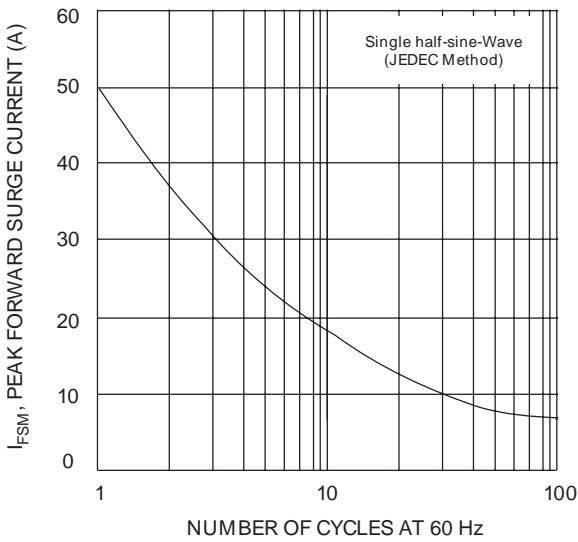


Fig. 3 Max Non-Repetitive Peak Forward Surge Current

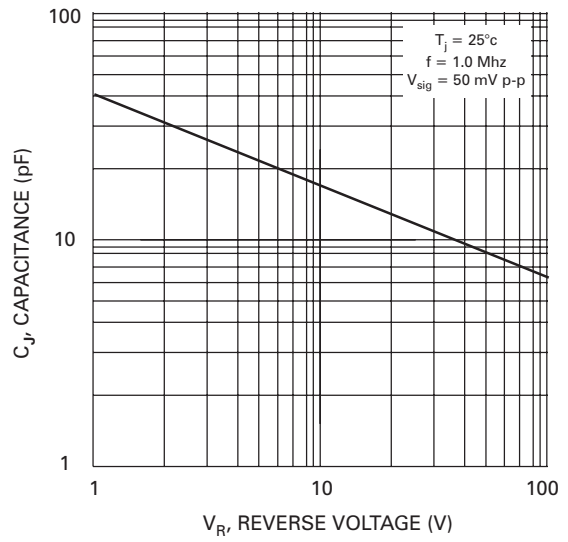


Fig. 4 Typ Junction Capacitance (per element)

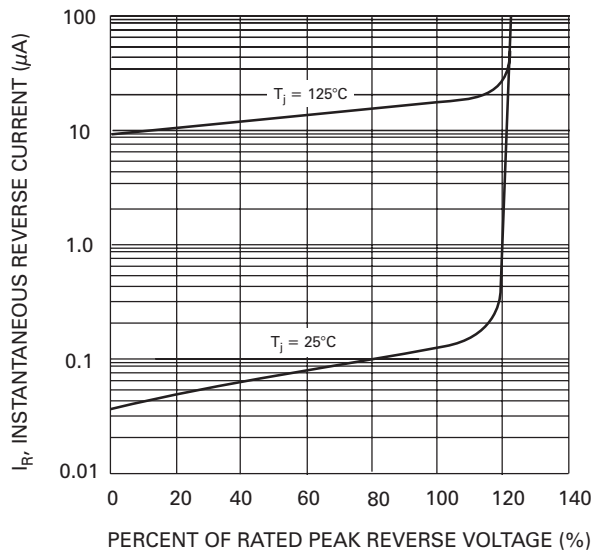


Fig. 5 Typ Reverse Characteristics (per element)