

Single Phase Glass Passivated  
Bridge RectifiersReverse Voltage: 50V to 1000V  
Forward Current: 1.5 Amp

## Features

- Glass passivated chip junction
- Ideal for automated placement
- Low leakage current
- High forward surge capability
- Moisture sensitivity level: level 1, per J-STD-020

## Mechanical Data

## • Package: DBS

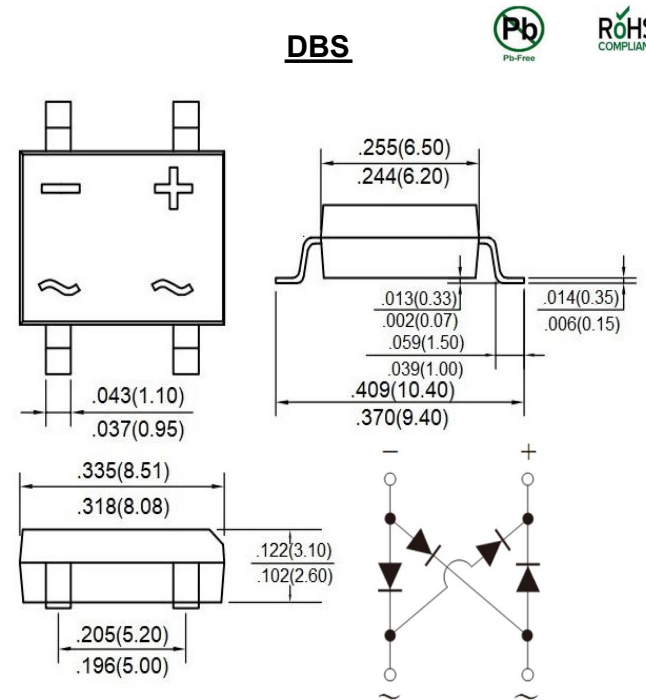
Molding compound meets UL 94 V-0 flammability rating

- Terminals: Matte tin plated leads,  
solderable per MIL-STD-750, Method 2026

- Polarity: Symbol marking on body

## Typical Applications

Suitable for AC to DC bridge full wave rectification for SMPS, LED lighting, adapter, battery charger, home appliances, office equipment, and telecommunication applications.



## Maximum Ratings and Electrical Characteristics (Ta=25°C Unless otherwise specified)

| Parameter&Test Conditions                                                         | SYM.               | DB151S      | DB152S | DB153S | DB154S | DB155S | DB156S | DB157S | Unit |
|-----------------------------------------------------------------------------------|--------------------|-------------|--------|--------|--------|--------|--------|--------|------|
| Device marking code                                                               |                    | DB151S      | DB152S | DB153S | DB154S | DB155S | DB156S | DB157S |      |
| Maximum Recurrent Peak Reverse Voltage                                            | V <sub>RRM</sub>   | 50          | 100    | 200    | 400    | 600    | 800    | 1000   | V    |
| Maximum RMS Voltage                                                               | V <sub>RMS</sub>   | 35          | 70     | 140    | 280    | 420    | 560    | 700    | V    |
| Maximum DC Blocking Voltage                                                       | V <sub>DC</sub>    | 50          | 100    | 200    | 400    | 600    | 800    | 1000   | V    |
| Maximum Average Forward Output Rectified Current (see Fig. 1)                     | I <sub>O(AV)</sub> | 1.5         |        |        |        |        |        |        | A    |
| Peak Forward Surge Current 8.3ms Single Half Sine-wave Superimposed On Rated Load | I <sub>FSM</sub>   | 50          |        |        |        |        |        |        | A    |
| Operating junction range                                                          | T <sub>J</sub>     | -55 to +150 |        |        |        |        |        |        | °C   |
| Storage temperature range                                                         | T <sub>STG</sub>   | -55 to +150 |        |        |        |        |        |        | °C   |

## Thermal Characteristics (Ta=25°C Unless otherwise specified)

| Parameter&Test Conditions                                        | SYM.             | DB151S | DB152S | DB153S | DB154S | DB155S | DB156S | DB157S | Unit |
|------------------------------------------------------------------|------------------|--------|--------|--------|--------|--------|--------|--------|------|
| Maximum Thermal Resistance per Leg, Junction To Lead (Note 1)    | R <sub>θJL</sub> | 15     |        |        |        |        |        |        | °C/W |
| Maximum Thermal Resistance per Leg, Junction To Ambient (Note 1) | R <sub>θJA</sub> | 40     |        |        |        |        |        |        | °C/W |

## Electrical Characteristics (Ta=25°C Unless otherwise specified)

| Parameter&Test Conditions                                         |                       | SYM.            | DB151S | DB152S | DB153S | DB154S | DB155S | DB156S | DB157S | Unit |
|-------------------------------------------------------------------|-----------------------|-----------------|--------|--------|--------|--------|--------|--------|--------|------|
| Maximum Instantaneous Forward Voltage per diode                   | IF= 1.5A              | V <sub>FM</sub> | 1.10   |        |        |        |        |        |        | V    |
| Maximum DC reverse current at rated DC blocking voltage per diode | T <sub>A</sub> = 25℃  | I <sub>R</sub>  | 5      |        |        |        |        |        |        | μA   |
|                                                                   | T <sub>A</sub> = 125℃ |                 | 100    |        |        |        |        |        |        |      |

## Notes:

1. Thermal resistance from junction to ambient and from junction to lead mounted on PCB with 0.5" x 0.5" (13 mm x 13 mm) copper pads.

## Rating and Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED

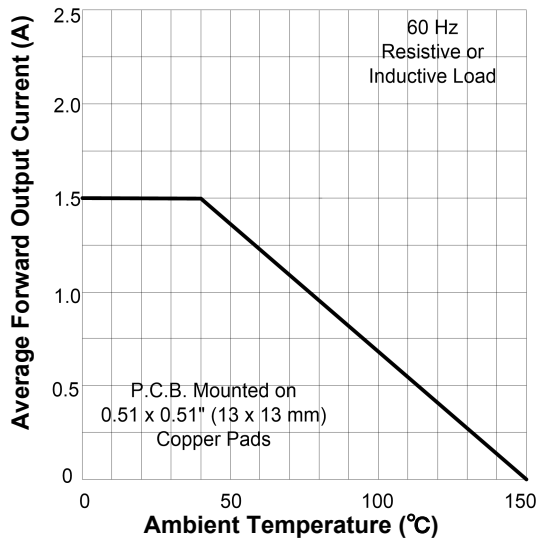


FIG. 2- -MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT Per Diode

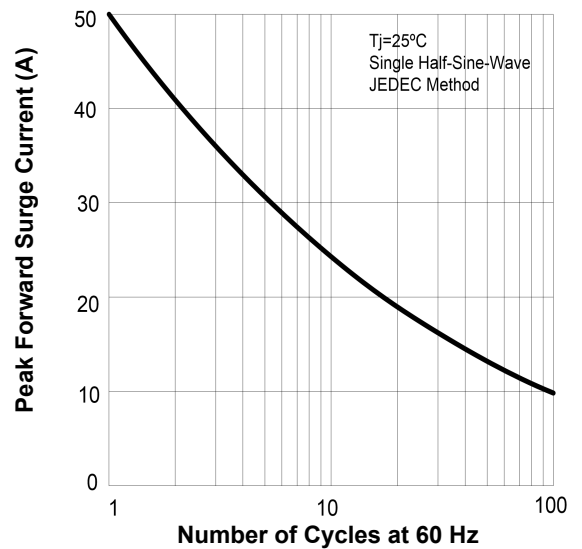


FIG. 3- TYPICAL FORWARD VOLTAGE

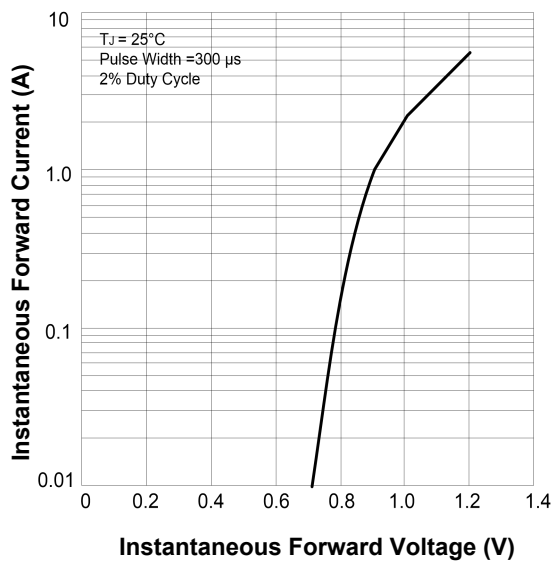
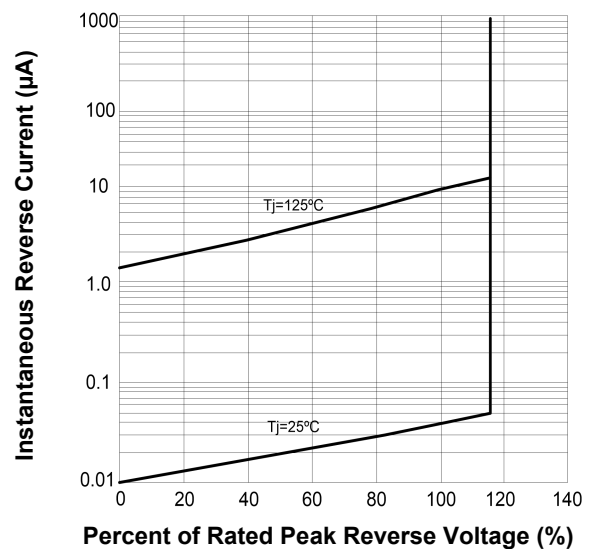


FIG. 4- TYPICAL REVERSE LEAKAGE CHARACTERISTICS



The curve above is for reference only.



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