

# 1.5A SURFACE MOUNT GLASS PASSIVATED BRIDGE

**RECTIFIER Reverse Voltage - 100 to 1000 V**

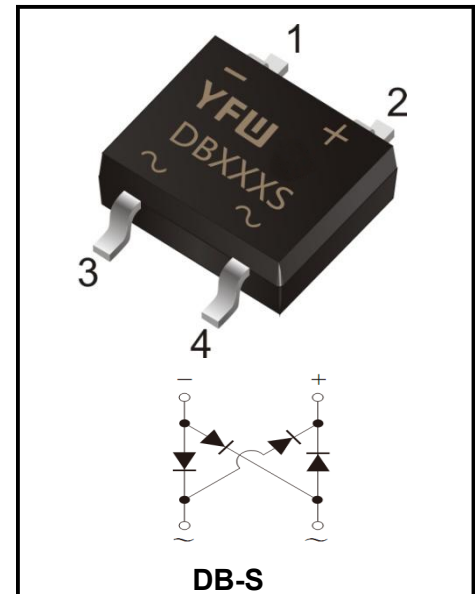
**Forward Current – 1.5A**

## FEATURES

- ◆High current capability
- ◆Low forward voltage drop
- ◆Glass Passivated Chip Junction
- ◆Low power loss, high efficiency
- ◆Lead free in comply with EU RoHS 2011/65/EU directives

## MECHANICAL DATA

- ◆Case: DB-S
- ◆Terminals: Solderable per MIL-STD-202, Method 208
- ◆Approx. Weight: 0.4g /0.02oz



## Maximum Ratings and Electrical characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20 %.

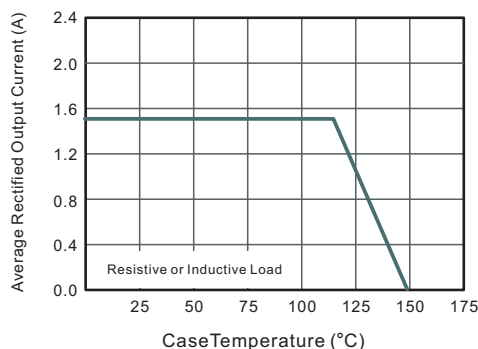
| Parameter                                                                                           | Symbols                        | DB152S     | DB153S | DB154S | DB155S | DB156S | DB157S | Units   |
|-----------------------------------------------------------------------------------------------------|--------------------------------|------------|--------|--------|--------|--------|--------|---------|
| Maximum Repetitive Peak Reverse Voltage                                                             | $V_{RRM}$                      | 100        | 200    | 400    | 600    | 800    | 1000   | V       |
| Maximum RMS voltage                                                                                 | $V_{RMS}$                      | 70         | 140    | 280    | 420    | 560    | 700    | V       |
| Maximum DC Blocking Voltage                                                                         | $V_{DC}$                       | 100        | 200    | 400    | 600    | 800    | 1000   | V       |
| Average Rectified Output Current                                                                    | $I_{(AV)}$                     | 1.5        |        |        |        |        |        | A       |
| Peak Forward Surge Current 8.3 ms Single Half Sine-Wave Superimposed on Rated Load(JEDEC method)    | $I_{FSM}$                      | 55         |        |        |        |        |        | A       |
| Forward Voltage per element @ $I_F=1.5A$ and 25°C                                                   | $V_F$                          | 1.1        |        |        |        |        |        | V       |
| Maximum DC Reverse Current @ $T_A=25^{\circ}C$<br>at Rated DC Blocking Voltage @ $T_A=125^{\circ}C$ | $I_R$                          | 5<br>500   |        |        |        |        |        | $\mu A$ |
| Typical Junction Capacitance (Note1)                                                                | $C_j$                          | 25         |        |        |        |        |        | pF      |
| Typical Thermal Resistance (Note2)                                                                  | $R_{\theta JA}/ R_{\theta JC}$ | 40/15      |        |        |        |        |        | °C/W    |
| Operating and Storage Temperature Range                                                             | $T_j, T_{stg}$                 | -55 ~ +150 |        |        |        |        |        | °C      |

(1) Measured at 1 MHz and applied reverse voltage of 4 V D.C

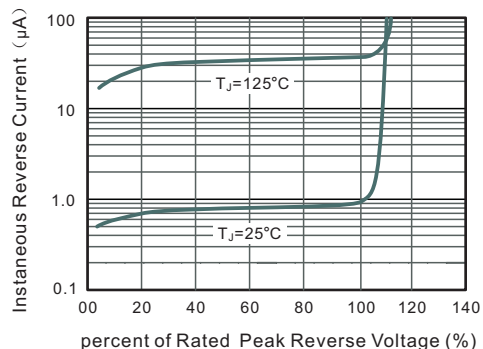
(2) Mounted on glass epoxy PCB board with 4×1.5"×1.5" (3.81×3.81 cm) copper pad.

**Ratings And Characteristic Curves**

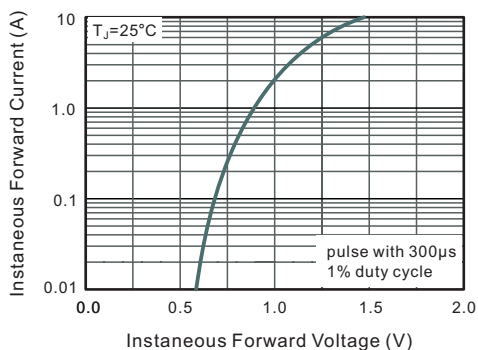
**Fig.1 Average Rectified Output Current Derating Curve**



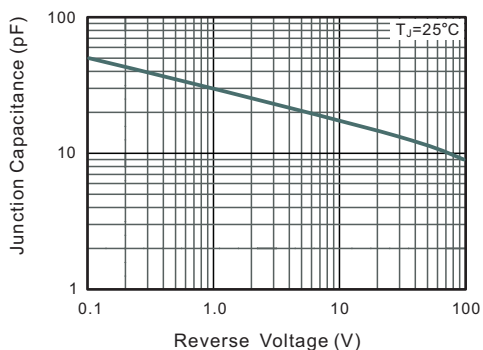
**Fig.2 Typical Reverse Characteristics**



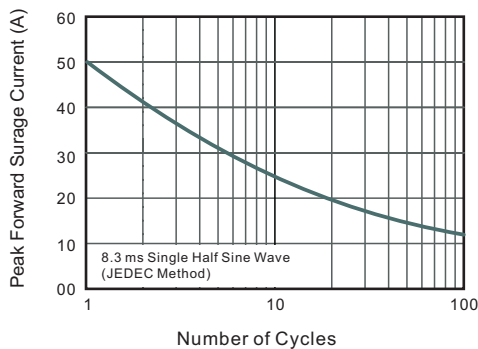
**Fig.3 Typical Instantaneous Forward Characteristics**



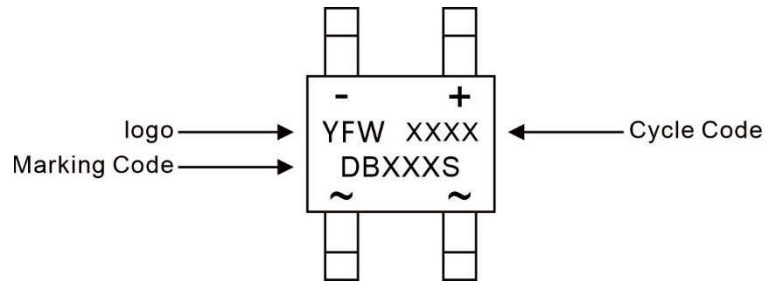
**Fig.4 Typical Junction Capacitance**



**Fig.5 Maximum Non-Repetitive Peak Forward Surge Current**



## Marking Diagram



## Ordering information

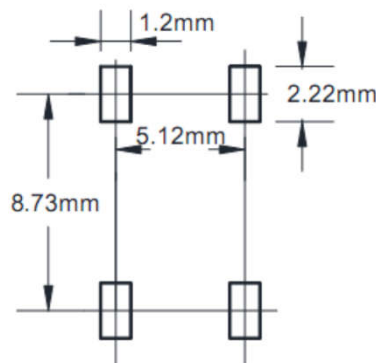
| Package | Packing Description | Packing Quantity             |
|---------|---------------------|------------------------------|
| DB-S    | Tape/Reel, 13" reel | 1500PCS/Reel 27000PCS/Carton |

## Package Dimensions

### DB-S

| Dim. | Millimeter(mm) |       | Dimensions in Inch |       |
|------|----------------|-------|--------------------|-------|
|      | Min.           | Max.  | Min.               | Max.  |
| A    | 6.00           | 6.60  | 0.24               | 0.26  |
| B    | 9.80           | 10.20 | 0.39               | 0.40  |
| C    | 4.80           | 5.40  | 0.19               | 0.21  |
| D    | 8.13           | 8.51  | 0.320              | 0.335 |
| E    | 2.80           | 3.30  | 0.110              | 0.130 |
| F    | 1.02           | 1.20  | 0.040              | 0.047 |
| G    | 0.22           | 0.33  | 0.009              | 0.013 |
| H    | 1.02           | 1.53  | 0.040              | 0.060 |
| I    | 1.80           | 2.10  | 0.070              | 0.083 |

### The recommended mounting pad size



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