

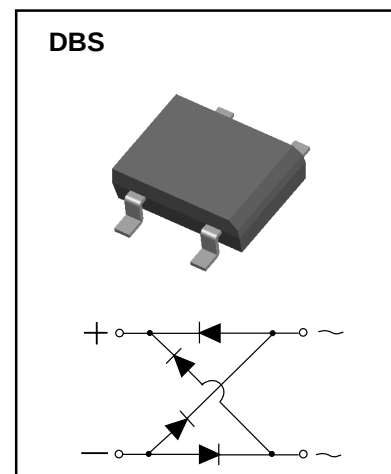
## DBS Plastic-Encapsulate Bridge Rectifier

### Features

- $I_O$  3.0A
- $V_{RRM}$  50V-1000V
- Low forward voltage drop
- High surge current capability
- Glass passivated chip junction

### Mechical Data

- Case: DBS molded plastic
- Molding compound: UL flammability classification rating 94V-0
- Terminals: Solder plated, solderable per MIL- STD-202, Method 208
- Polarity: As marked on case



### Limiting Values (Absolute Maximum Rating)

| Item                                 | Symbol    | Unit        | Conditions                                                   | DB3       |      |      |      |      |      |      |
|--------------------------------------|-----------|-------------|--------------------------------------------------------------|-----------|------|------|------|------|------|------|
|                                      |           |             |                                                              | 01SZ      | 02SZ | 03SZ | 04SZ | 05SZ | 06SZ | 07SZ |
| Repetitive Peak Reverse Voltage      | $V_{RRM}$ | V           |                                                              | 50        | 100  | 200  | 400  | 600  | 800  | 1000 |
| Maximum DC Blocking Voltage          | $V_{DC}$  | V           |                                                              | 50        | 100  | 200  | 400  | 600  | 800  | 1000 |
| Maximum RMS Voltage                  | $V_{RMS}$ | V           |                                                              | 35        | 70   | 140  | 280  | 420  | 560  | 700  |
| Average Rectified Output Current     | $I_O$     | A           | 60Hz sine wave, R-load , $T_L=100^{\circ}C$                  | 3.0       |      |      |      |      |      |      |
| Surge(Non-repetitive)Forward Current | $I_{FSM}$ | A           | 60Hz sine wave, 1 cycle, $T_j=25^{\circ}C$                   | 80        |      |      |      |      |      |      |
| Current Squared Time                 | $I^2t$    | $A^2S$      | $1ms \leq t < 8.3ms$ $T_j=25^{\circ}C$ , Rating of per diode | 26.5      |      |      |      |      |      |      |
| Storage Temperature                  | $T_{stg}$ | $^{\circ}C$ |                                                              | -55 ~+150 |      |      |      |      |      |      |
| Junction Temperature                 | $T_j$     | $^{\circ}C$ |                                                              | -55 ~+150 |      |      |      |      |      |      |

### Electrical Characteristics ( $T_a=25^{\circ}C$ Unless otherwise specified)

| Item                 | Symbol           | Unit          | Test Condition                                            | Max |
|----------------------|------------------|---------------|-----------------------------------------------------------|-----|
| Peak Forward Voltage | $V_{FM}$         | V             | $I_{FM}=3.0A$ , Pulse measurement, Rating of per diode    | 1.1 |
| Peak Reverse Current | $I_{RRM}$        | $\mu A$       | $V_{RM}=V_{RRM}$ , Pulse measurement, Rating of per diode | 5   |
| Thermal Resistance   | $R_{\theta J-A}$ | $^{\circ}C/W$ | Between junction and ambient, On glass-epoxi substrate    | 68  |
|                      | $R_{\theta J-L}$ |               | Between junction and lead                                 | 15  |

## Typical Characteristics

FIG.1: FORWARD CURRENT DERATING CURVE

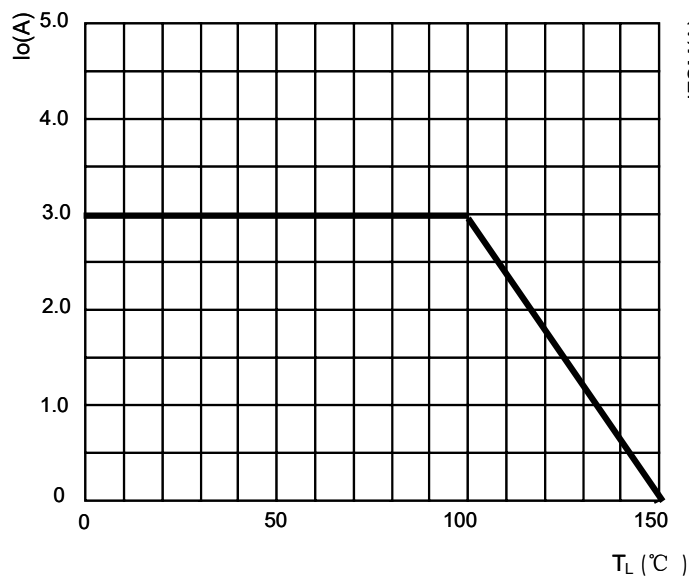


FIG.2: MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

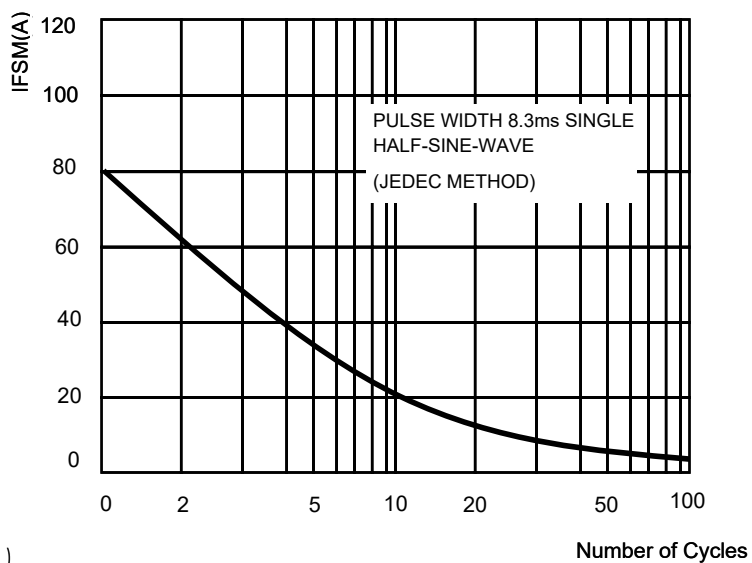


FIG.3: TYPICAL FORWARD CHARACTERISTICS

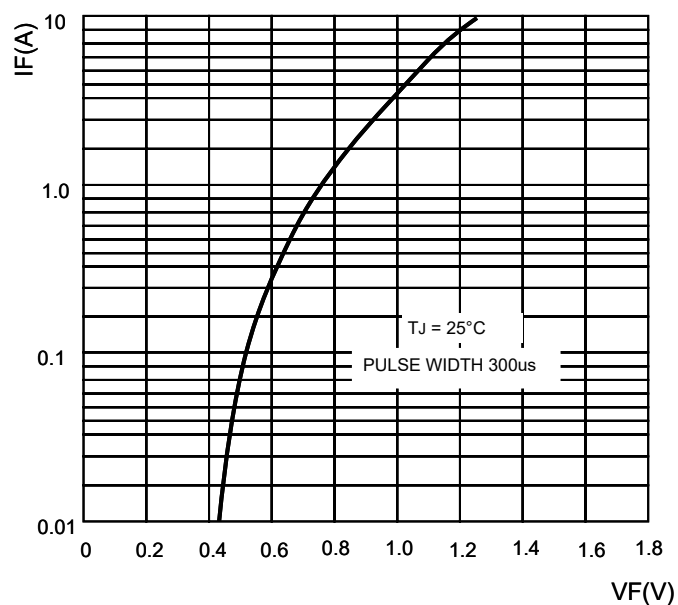
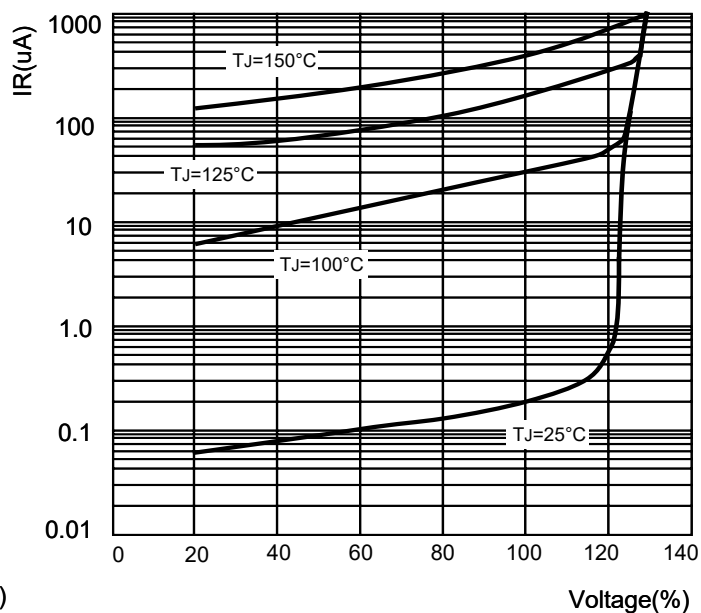
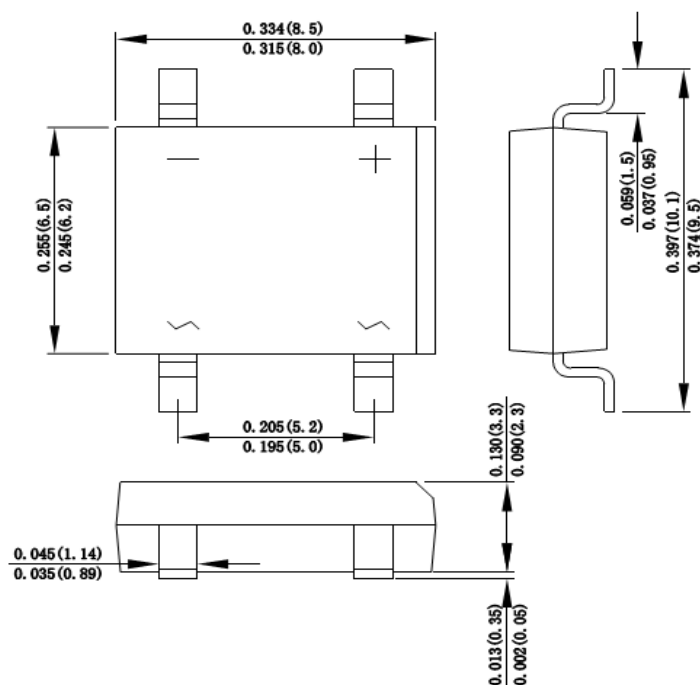


FIG.4: TYPICAL REVERSE CHARACTERISTICS

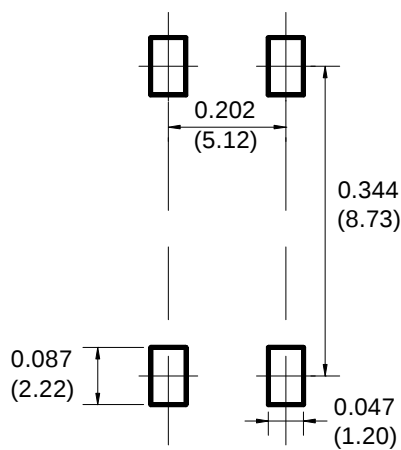


## DBS Package Outline Dimensions



Dimensions in inches and (millimeters)

## DBS Suggested Pad Layout



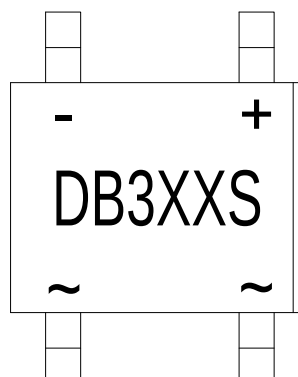
### Note:

1. Controlling dimension: in millimeters.
2. General tolerance:  $\pm 0.05\text{mm}$ .
3. The pad layout is for reference purposes only.

## Ordering Information

| Part Number         | Package | Shipping Quantity |
|---------------------|---------|-------------------|
| DB301SZ-<br>DB307SZ | DBS     | 1500/tape&Reel    |

## Marking Diagram



XX: From 01 to 07