# BL GALAXY ELECTRICAL

## EDB101S --- EDB106S

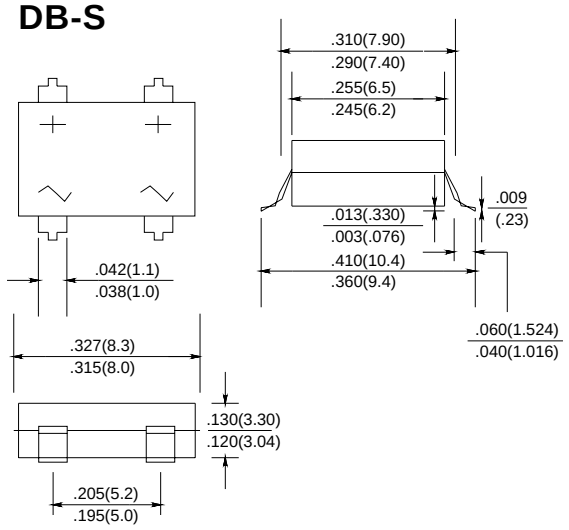
## SILICON BRIDGE RECTIFIERS

**VOLTAGE RANGE: 50 --- 400 V**
**CURRENT: 1.0 A**

**FEATURES**

- ◇ Rating to 400 V PRV
- ◇ Surge overload rating to 30 Amperes peak
- ◇ Ideal for printed circuit board
- ◇ Reliable low cost construction utilizing molded
- ◇ Lead solderable per MIL-STD-202 method 208
- ◇ Lead: silver plated copper, solderde plated
- ◇ Plastic material has UL flammability classification 94V-O
- ◇ Polarity symbols molded on body
- ◇ Weight: 1.0 grams

**DB-S**




inch(mm)

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25℃ ambient temperature unless otherwise specified.

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

| | | EDB 101S | EDB 102S | EDB 103S | EDB 104S | EDB 105S | EDB 106S | UNITS |
|---|---|---|---|---|---|---|---|---|
| Maximum recurrent peak reverse voltage | $V_{RRM}$ | 50 | 100 | 150 | 200 | 300 | 400 | V |
| Maximum RMS voltage | $V_{RMS}$ | 35 | 70 | 105 | 140 | 210 | 280 | V |
| Maximum DC blocking voltage | $V_{DC}$ | 50 | 100 | 150 | 200 | 300 | 400 | V |
| Maximum average forw ard Output current @$T_A$=55℃ | $I_{F(AV)}$ | 1.0 | | | | | | A |
| Peak forw ard surge current 8.3ms single half-sine-w ave superimposed on rated load | $I_{FSM}$ | 30.0 | | | | | | A |
| Maximum instantaneous forw ard voltage at 1.0 A | $V_F$ | 1.0 | | | | | | V |
| Maximum reverse current @$T_A$=25℃ | $I_R$ | 10.0 | | | | | | μA |
| at rated DC blocking voltage @$T_A$=100℃ | | 1.0 | | | | | | mA |
| Maximum reverse recovery time (NOTE 1) | $t_{rr}$ | 50 | | | | | | nS |
| Typical junction calacitance (NOTE 2) | $C_J$ | 15 | | | | 10 | | pF |
| Operating junction temperature range | $T_J$ | - 55 ---- + 150 | | | | | | ℃ |
| Storage temperature range | $T_{STG}$ | - 55 ---- + 150 | | | | | | ℃ |

NOTE: 1. Test conditions: $I_F$=0.5A, $I_R$=-1.0A, $I_{RR}$=-0.25A.
2. Measured at 1 MHz and applied rev erse v oltage of 4.0 v olts.

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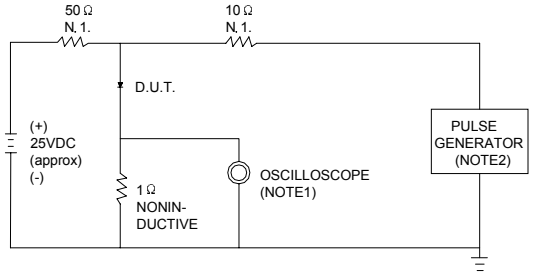
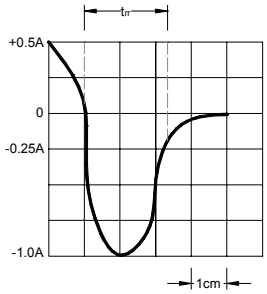
**FIG.1 -- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC**

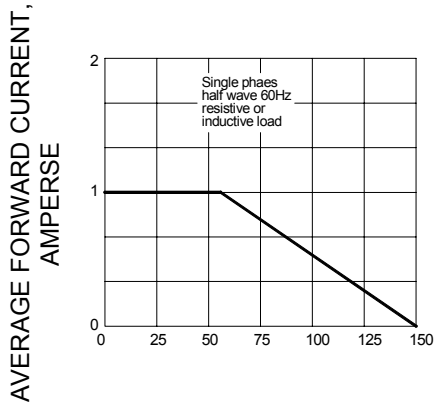



NOTES:1.RISE TIME =7ns MAX. INPUT IMPEDANCE=1MΩ.22pF
2.RISE TIME=10ns MAX. SOURCE IMPEDANCE=50Ω

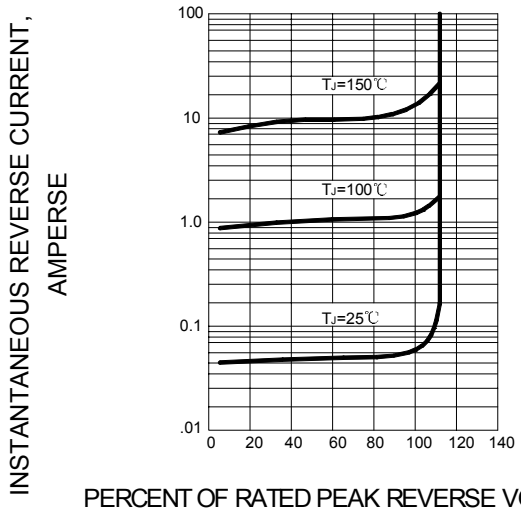
SET TIME BASE FOR
10 ns /cm

**FIG.2 -- TYPICAL FORWARD CURRENT DERATING CURVE**



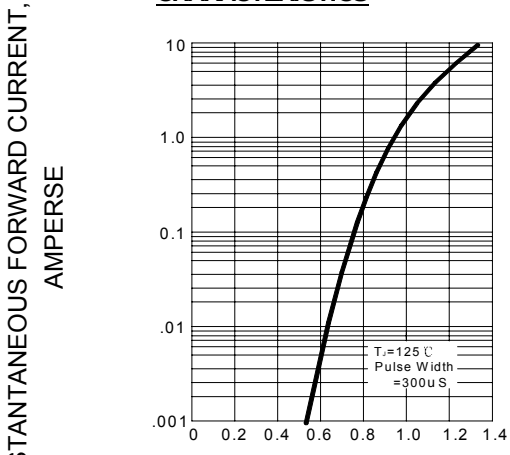

AMBIENT TEMPERATURE (℃)

**FIG.3 -- TYPICAL REVERSE CHARACTERISTICS**



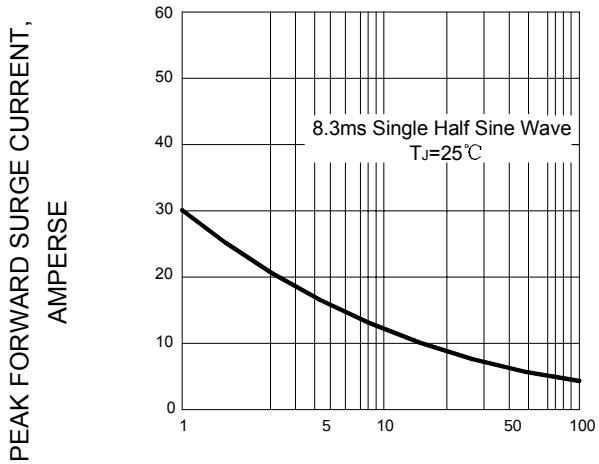

PERCENT OF RATED PEAK REVERSE VOLTAGE, (%)

**FIG.4 -- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



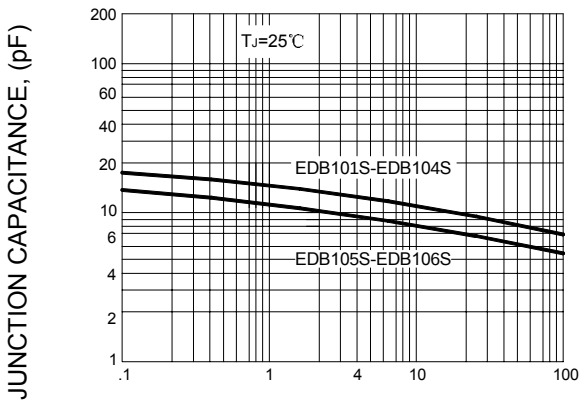

INSTANTANEOUS FORWARD VOLTAGE, VOLTS

**FIG.5 -- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT**




NUMBER OF CYCLES AT 60Hz

**FIG.6 -- TYPICAL JUNCTION CAPACITANCE**




REVERSE VOLTAGE, VOLTS