

SILICON BRIDGE RECTIFIERS
EDB101--EDB106
SFEATURES

- Rating to 1000V PRVP
- Surge overload rating to 30 Amperes peak
- Ideal for printed circuit board
- Reliable low cost construction utilizing molded plastic technique results in inexpensive product
- Lead solderable per MIL-STD-202 method 208
- Glass passivated chip junctions
- Plastic material has UL flammability classification94V-O


Maximum Ratings (@TA = 25°C unless otherwise specified)

| Characteristic | Symbol | EDB101 | EDB102 | EDB103 | EDB104 | EDB105 | EDB106 | UNITS |
|---|-------------|--------|--------|--------|--------|--------|--------|-------|
| Peak Repetitive Reverse Voltage | V_{RRM} | 50 | 100 | 150 | 200 | 300 | 400 | V |
| RMS Reverse Voltage | V_{RMS} | 35 | 70 | 105 | 140 | 210 | 280 | V |
| DC Blocking Voltage | V_{DC} | 50 | 100 | 150 | 200 | 300 | 400 | V |
| Maximum average forward Output current @TA=55°C | $I_{F(AV)}$ | 1.0 | | | | | | A |
| Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load | I_{FSM} | 30 | | | | | | A |

Thermal Characteristics

| Characteristic | Symbol | EDB101 | EDB102 | EDB103 | EDB104 | EDB105 | EDB106 | UNITS |
|---------------------------------------|-----------|-----------------|--------|--------|--------|--------|--------|-------|
| Typical junction calacitance (NOTE 2) | C_J | 15 | | | | 10 | | pF |
| Operating junction temperature range | T_J | - 55 ---- + 150 | | | | | | °C |
| Storage temperature range | T_{STG} | - 55 ---- + 150 | | | | | | °C |

Electrical Characteristics (@TA = 25°C unless otherwise specified)

| Characteristic | Symbol | EDB101 | EDB102 | EDB103 | EDB104 | EDB105 | EDB106 | UNITS |
|--|----------|-----------|--------|--------|--------|--------|--------|-----------|
| Maximum instantaneous forward voltage at 1.0 A | V_F | 1.0 | | | | | | V |
| Maximum reverse current @TA=25°C at rated DC blocking voltage @TA=100°C | I_R | 10 1.0 | | | | | | μ A mA |
| Maximum reverse recovery time (NOTE 1) | t_{rr} | 50 | | | | | | ns |

 NOTE: 1. Test conditions: $I_F=0.5A$, $I_R=-1.0A$, $IRR=-0.25A$.

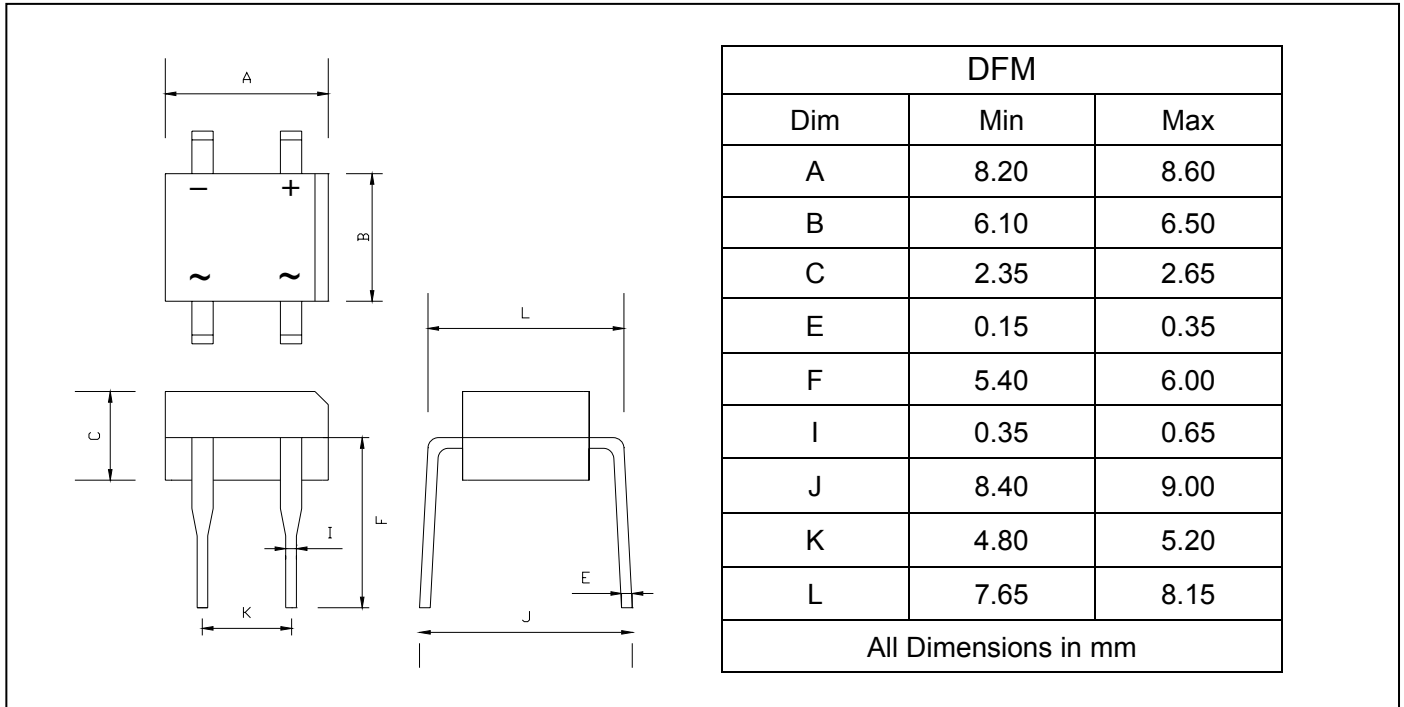
2. Measured at 1 MHz and applied reverse voltage of 4.0 v olts.



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PACKAGE OUTLINE DIMENSIONS



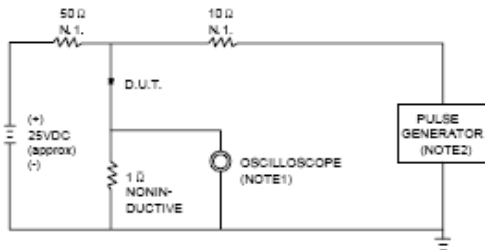
PACKAGE INFORMATION

| Device | Package | Shipping |
|----------------|---------|-------------|
| EDB101--EDB106 | DFM | 50unit/pipe |

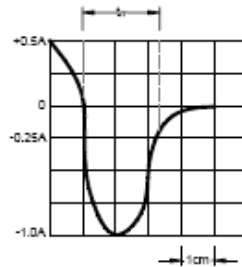
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FIG.1 – TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



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

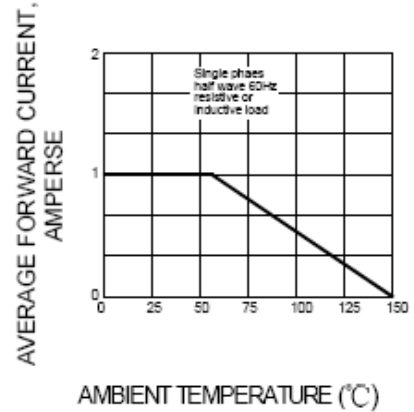


FIG.3 – TYPICAL REVERSE CHARACTERISTICS

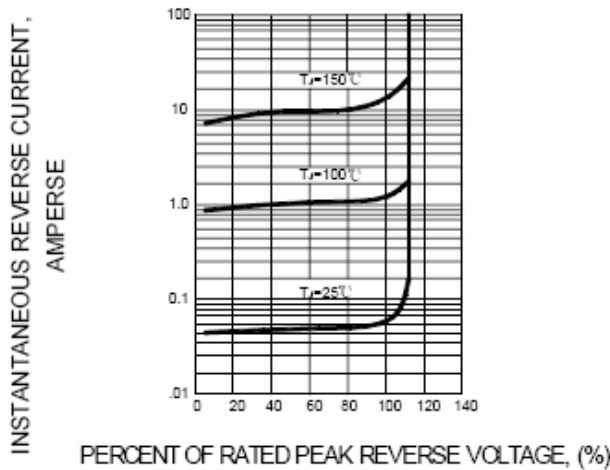


FIG.4 – TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

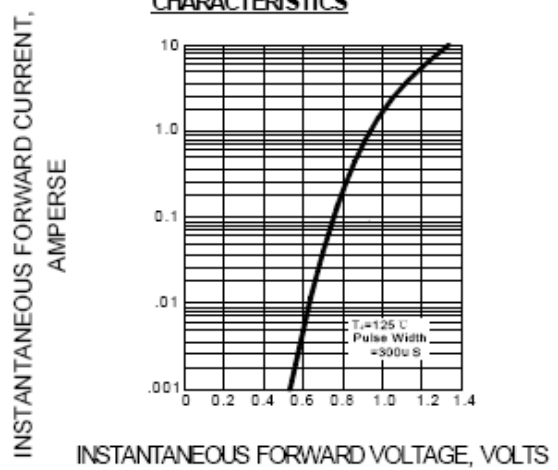


FIG.5 – MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

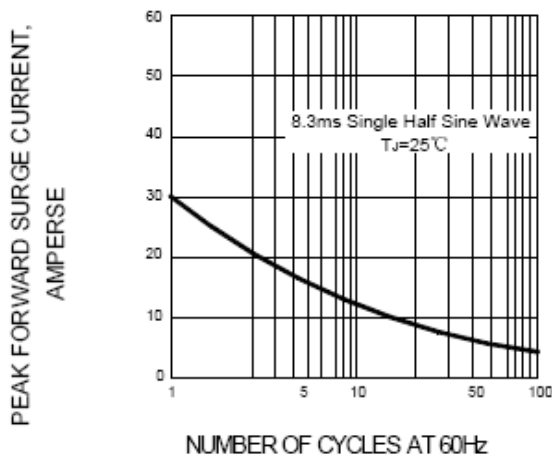


FIG.6 – TYPICAL JUNCTION CAPACITANCE

