

**GLASS PASSIVATED SUPER FAST
SILICON SURFACE MOUNT BRIDGE RECTIFIER**
VOLTAGE RANGE 50 to 400 Volts CURRENT 1.0 Ampere

FEATURES

- * Good for automatic insertion
- * Surge overload rating - 30 amperes peak
- * Ideal for printed circuit board
- * Reliable low cost construction utilizing molded
- * Glass passivated device
- * Polarity symbols molded on body
- * Mounting position: Any
- * Weight: 1.0 gram

MECHANICAL DATA

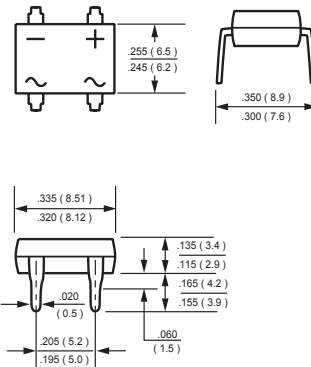
- * UL listed the recognized component directory, file #94233
- * Epoxy: Device has UL flammability classification 94V-O

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, derate current by 20%.



DB-1



Dimensions in inches and (millimeters)

MAXIMUM RATINGS (At $T_A = 25^\circ\text{C}$ unless otherwise noted)

| RATINGS | SYMBOL | EDB101 | EDB102 | EDB103 | EDB104 | EDB105 | EDB106 | UNITS |
|---|---------------------|--------------|--------|--------|--------|--------|--------|-------|
| Maximum Recurrent Peak Reverse Voltage | V _{RRM} | 50 | 100 | 150 | 200 | 300 | 400 | Volts |
| Maximum RMS Bridge Input Voltage | V _{RMS} | 35 | 70 | 105 | 140 | 210 | 280 | Volts |
| Maximum DC Blocking Voltage | V _{DC} | 50 | 100 | 150 | 200 | 300 | 400 | Volts |
| Maximum Average Forward Output Current at T _A = 55°C | I _O | 1.0 | | | | | | Amps |
| Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) | I _{FSM} | 30 | | | | | | Amps |
| Typical Thermal Resistance (Note 3) | R _{θJA} | 38 | | | | | | °C/W |
| | R _{θJL} | 12 | | | | | | |
| Typical Junction Capacitance (Note 2) | C _J | 15 | | | | 10 | | pF |
| Operating and Storage Temperature Range | T _{J,TSTG} | -55 to + 150 | | | | | | °C |

ELECTRICAL CHARACTERISTICS (At $T_A = 25^\circ\text{C}$ unless otherwise noted)

| CHARACTERISTICS | | SYMBOL | EDB101 | EDB102 | EDB103 | EDB104 | EDB105 | EDB106 | UNITS |
|--|--------------------------|----------------|--------|--------|--------|--------|--------|--------|-------|
| Maximum Forward Voltage at 1.0A DC | | V _F | 1.05 | | | | 1.35 | 1.70 | Volts |
| Maximum Reverse Current at Rated | @ T _A = 25°C | I _R | 5.0 | | | | | | μAmps |
| DC Blocking Voltage per element | @ T _A = 100°C | | 100 | | | | | | μAmps |
| Maximum Reverse Recovery Time (Note 1) | | trr | 50 | | | | nSec | | |

Note: 1. Test Conditions: $I_F=0.5A, I_R=-1.0A, I_{RR}=-0.25A$.
2. Measured at 1MHz and applied reverse voltage of 4.0 volts.
3. Thermal Resistance : Mounted on PCB.

2006-11
REV:B

RATING AND CHARACTERISTICS CURVES (EDB101 THRU EDB106)

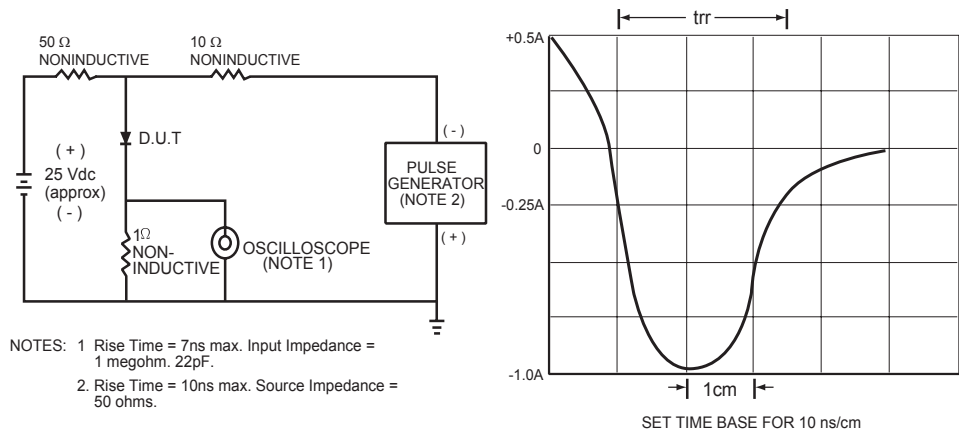


FIG.1 TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC

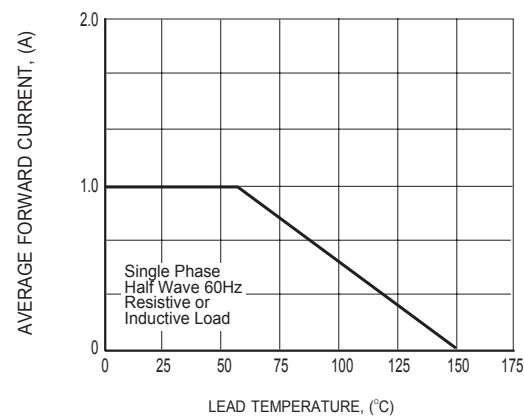


FIG.2 TYPICAL FORWARD CURRENT DERATING CURVE

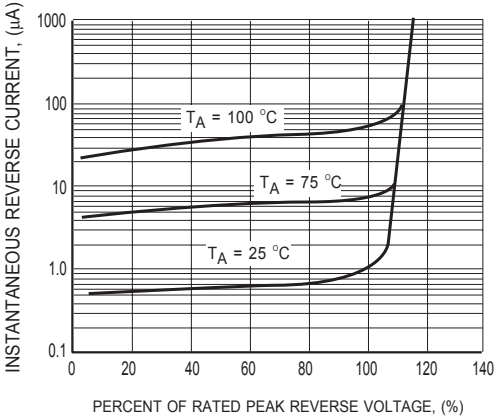


FIG.3 TYPICAL REVERSE CHARACTERISTICS

RATING AND CHARACTERISTICS CURVES (EDB101 THRU EDB106)

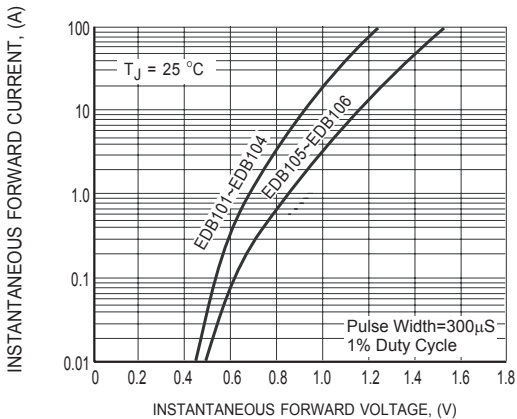


FIG.4 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

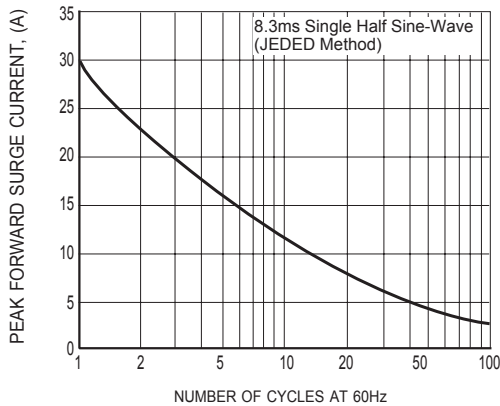


FIG.5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

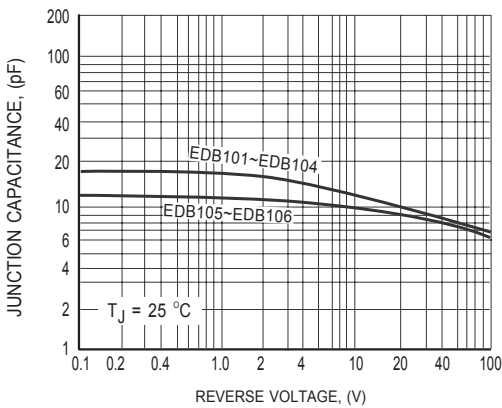


FIG.6 TYPICAL JUNCTION CAPACITANCE

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