



# DB101 THRU DB107

Voltage Range - 50 to 1000 Volts Current - 1.0 Ampere

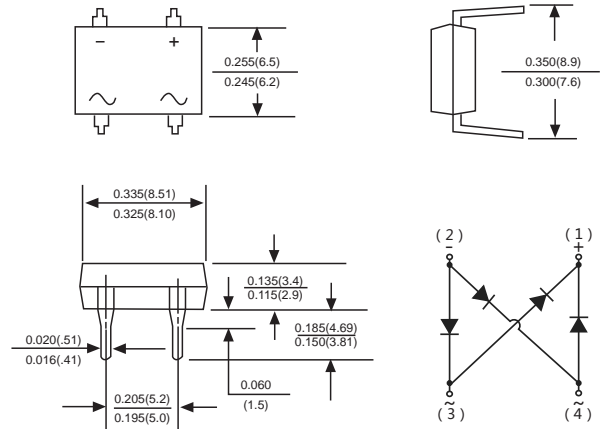
## SINGLE PHASE GLASS PASSIVATED BRIDGE RECTIFIERS

### Features

- ◆ Ideal for printed circuit board
- ◆ Reliable low cost construction utilizing molded plastic technique
- ◆ High temperature soldering guaranteed: 260°/10 seconds at 5 lbs., (2.3kg) tension
- ◆ Small size, simple installation
- ◆ High surge current capability

**DB**

**ROHS**  
COMPLIANT



Dimensions in inches and (millimeters)

### Mechanical Data

**Case** : JEDEC DB Molded plastic body  
**Terminals** : Solder plated, solderable per MIL-STD-750, Method 2026  
**Polarity** : Polarity symbol marking on case  
**Mounting Position** : Any  
**Weight** : 0.02 ounce, 0.4 grams

### Maximum Ratings And Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

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

Parameter	SYMBOLS	MDD	MDD	MDD	MDD	MDD	MDD	MDD	UNITS
		DB101	DB102	DB103	DB104	DB105	DB106	DB107	
Marking Code									
Maximum repetitive peak reverse voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum average forward rectified current at $T_C=40^\circ C$	$I_{F(AV)}$	1.0							A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	50							A
Maximum instantaneous forward voltage drop per leg at 1A	$V_F$	1.1							V
Maximum DC reverse current at rated DC blocking voltage	$I_R$	$T_A=25^\circ C$							$\mu A$
		$T_A=100^\circ C$							$\mu A$
Operating temperature range	$T_J$	-55 to +150							$^\circ C$
storage temperature range	$T_{STG}$	-55 to +150							$^\circ C$

Note: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts.

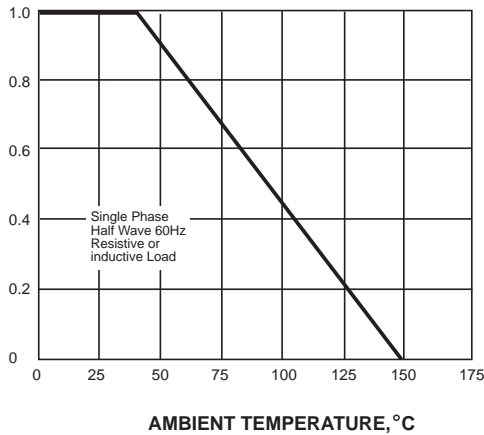
2. Unit mounted on P.C. board with 0.51" x 0.51" (13x13mm) copper pads.



## Ratings And Characteristic Curves

AVERAGE FORWARD RECTIFIED CURRENT, AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



PEAK FORWARD SURGE CURRENT, AMPERES

FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

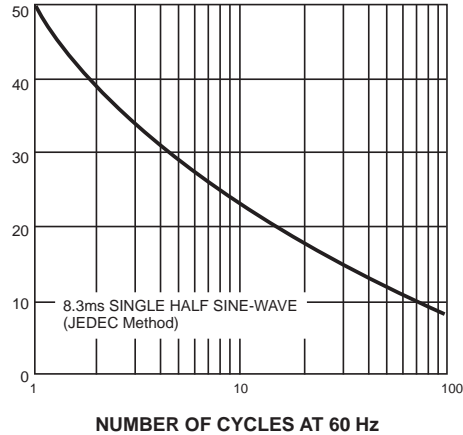
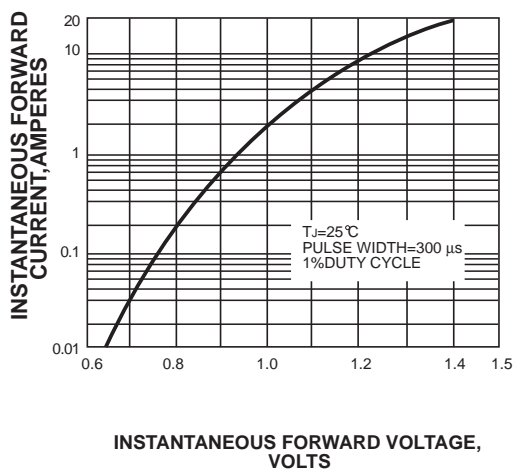


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



INSTANTANEOUS REVERSE CURRENT, MICROAMPERES

FIG. 4-TYPICAL REVERSE CHARACTERISTICS

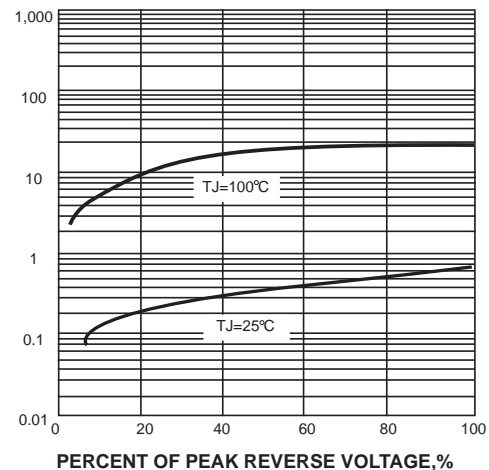
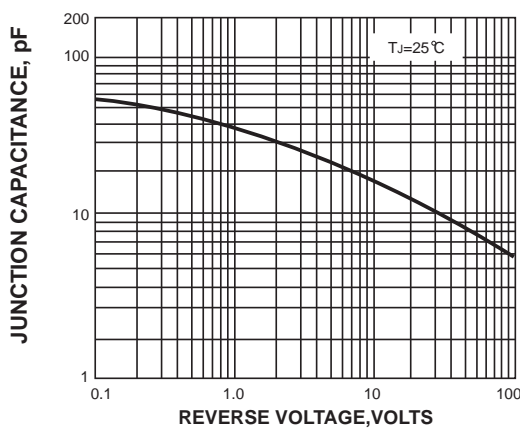
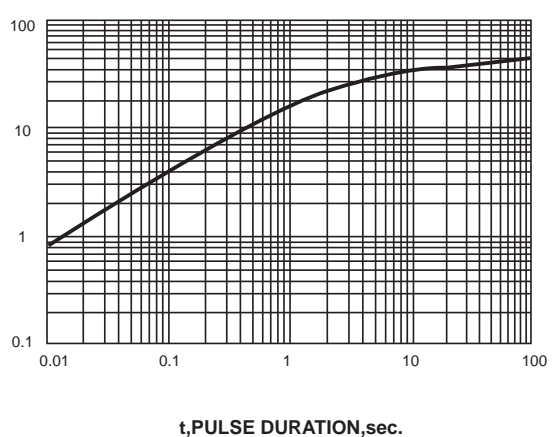


FIG. 5-TYPICAL JUNCTION CAPACITANCE



TRANSIENT THERMAL IMPEDANCE, °C/W

FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE



The curve above is for reference only.