



# DB101S THRU DB107S

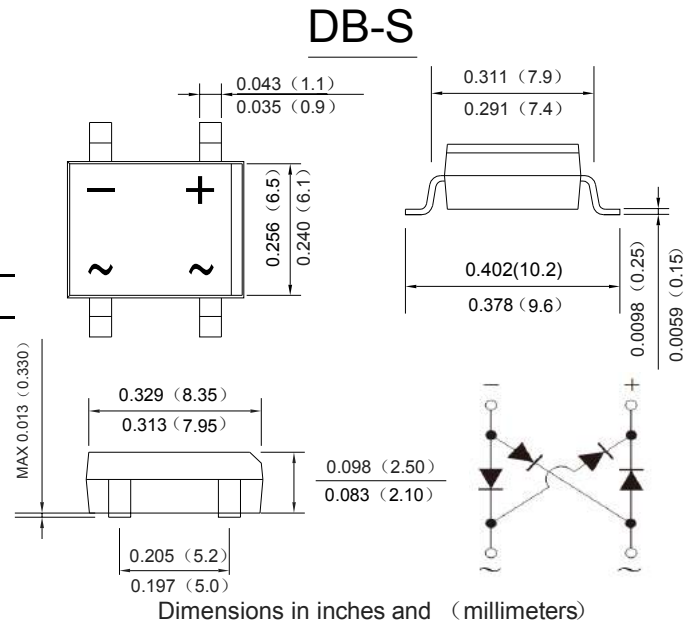
## SINGLE PHASE 1.0AMP SURFACE MOUNT GLASS PASSIVATED BRIDGE RECTIFIER

### Features

- Glass passivated die construction
- Low forward voltage drop
- High current capability
- High surge current capability
- Designed for surface mount application
- Plastic material-UL flammability 94V-0

### Mechanical Data

- Case: DB-S, molded plastic
- Terminals: plated leads solderable per MIL-STD-202, Method 208
- Polarity: as marked on case
- Mounting position: Any
- Marking: type number
- Lead Free: For RoHS / Lead Free Version



### Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Single Phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

TYPE NUMBER	SYMBOL	DB101S	DB102S	DB103S	DB104S	DB105S	DB106S	DB107S	UNITS
Peak Repetitive Reverse Voltage	$V_{RRM}$								
Working Peak Reverse Voltage	$V_{RWM}$	50	100	200	400	600	800	1000	V
DC Blocking Voltage	$V_{DC}$								
RMS Reverse Voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Average Rectified Output Current (Note 1)@ $T_C=100^\circ C$	$I_F(AV)$	1.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	45							A
$I^2t$ Rating for Fusing ( $t < 8.3ms$ )	$I^2t$	8.404							$A^2s$
Forward Voltage per element @ $I_F=1.0A$	$V_{FM}$	1.0							V
Peak Reverse Current @ $T_J=25^\circ C$ At Rated DC Blocking Voltage @ $T_J=125^\circ C$	$I_R$	5.0 100							$\mu A$
Typical Junction Capacitance (Note 2)	$C_J$	15							pF
Typical Thermal Resistance	$R_{\theta JA}$	40							$^\circ C/W$
	$R_{\theta JL}$	15							
Operating and Storage Temperature Range	$T_J, T_{STG}$	-55to+150							$^\circ C$

Note:1. Mounted on glass epoxy PC board with 1.3mm<sup>2</sup> solder pad.

2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.



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Fig. 1 Output Current Derating Curve

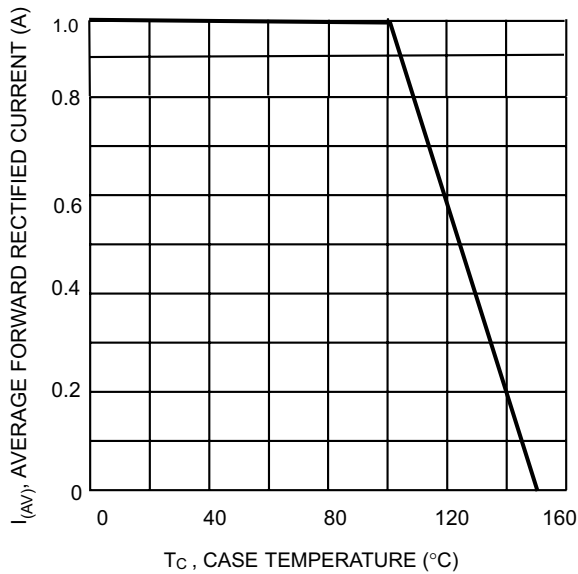


Fig. 2 Typical Forward Characteristics

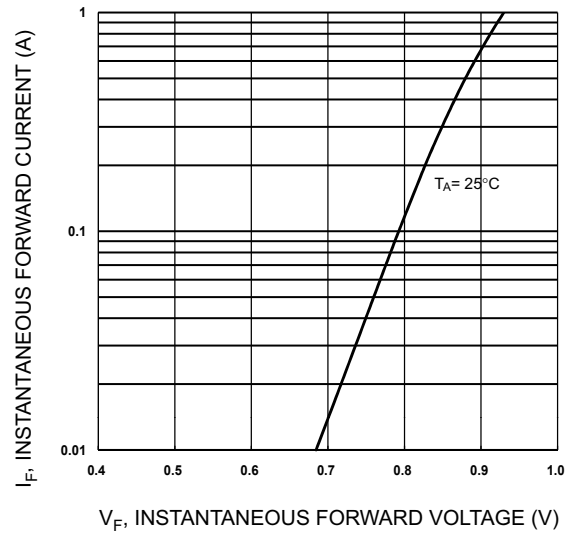


Fig. 3 Maximum Peak Forward Surge Current

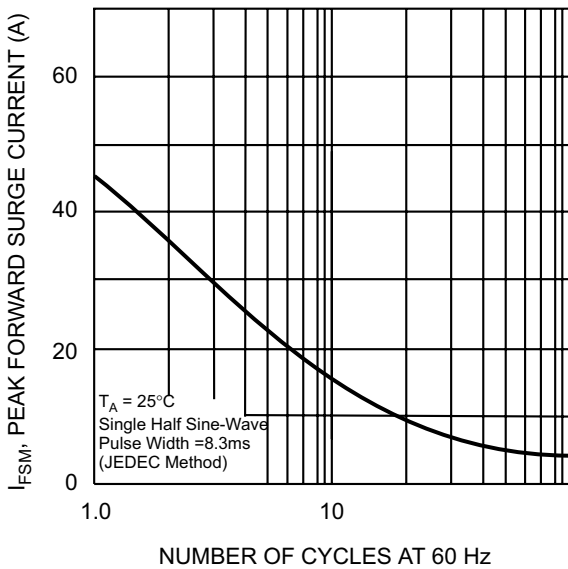


Fig. 4 Typical Reverse Characteristics

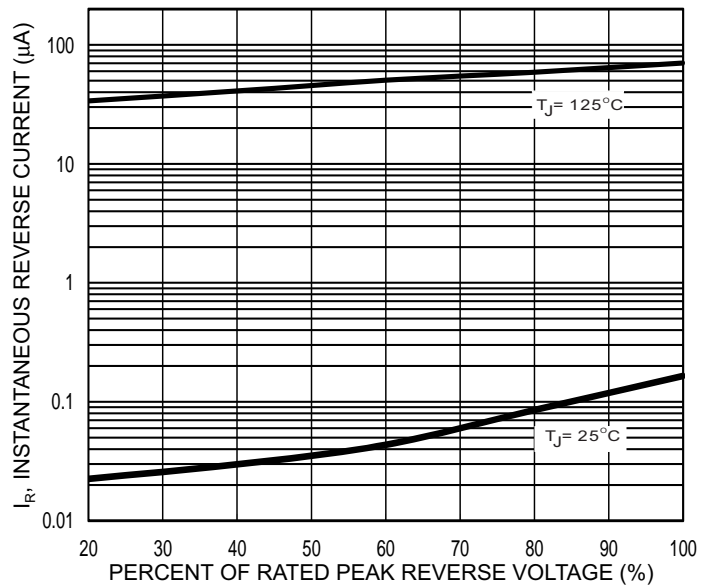


Fig. 5 Typical Junction Capacitance

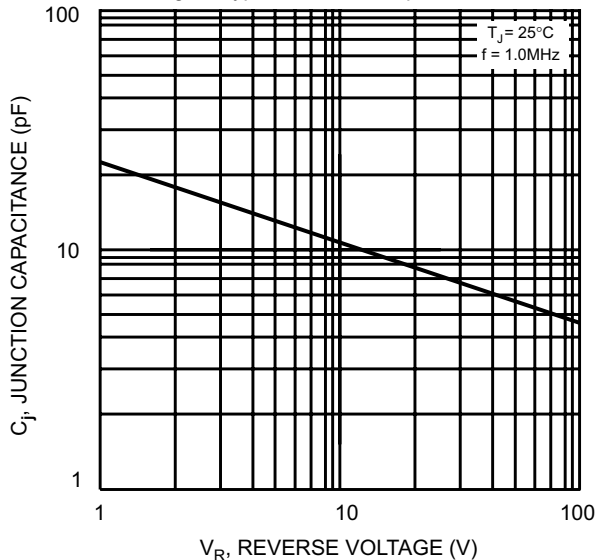
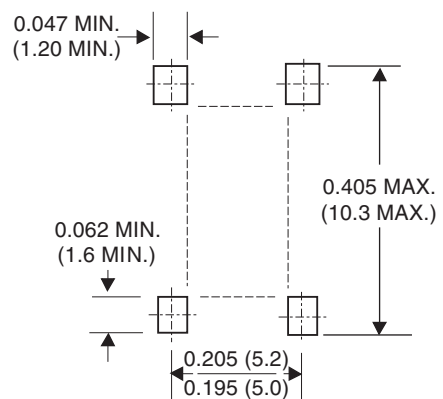


FIG.6 MOUNTING PAD LAYOUT





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