



# ABS151 THRU ABS1510

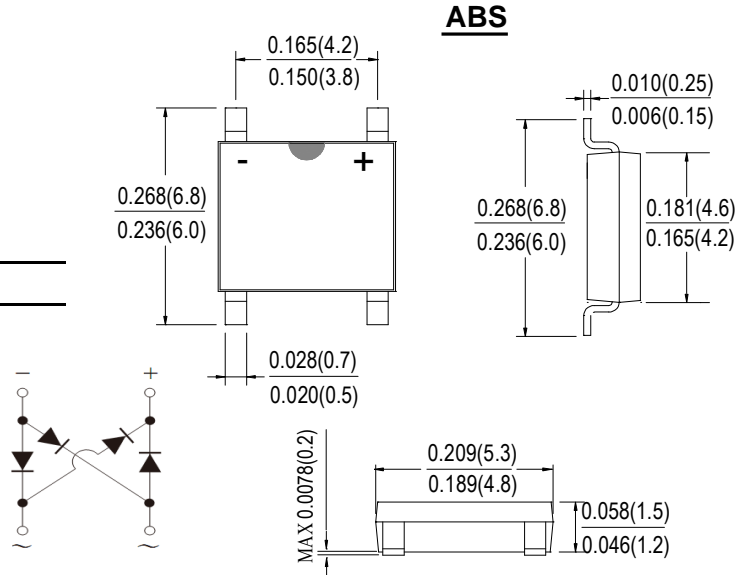
SINGLE PHASE 1.5AMP SURFACE MOUNT GLASS PASSIVATED BRIDGE RECTIFIER

## 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: SOPA-4, molded plastic ABS
- Terminals: plated leads solderable per MIL-STD-202, Method 208
- Polarity: as marked on case
- Mounting position: Any
- Marking: type number



Dimensions in inches and (millimeters)

## 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	ABS151	ABS152	ABS154	ABS156	ABS158	ABS1510	UNITS
Peak Repetitive Reverse Voltage	$V_{RRM}$							
Working Peak Reverse Voltage	$V_{RWM}$	100	200	400	600	800	1000	V
DC Blocking Voltage	$V_{DC}$							
RMS Reverse Voltage	$V_{RMS}$	70	140	280	420	560	700	V
Average Rectified Output Current (Note:1) @ $T_c = 100^\circ\text{C}$	$I_{F(AV)}$	1.5						A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	50						A
$I^2t$ Rating for Fusing ( $t < 8.3\text{ms}$ )	$I^2t$	10.375						$\text{A}^2\text{s}$
Forward Voltage per element @ $I_F = 0.75\text{A}$ @ $I_F = 1.5\text{A}$	$V_{FM}$	0.95 1.0						V
Peak Reverse Current @ $T_J = 25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_J = 125^\circ\text{C}$	$I_R$	5.0 100						$\mu\text{A}$
Typical Junction Capacitance (Note2)	$C_J$	20						pF
Typical Thermal Resistance	$R_{\theta JA}$	62.5						$^\circ\text{C}/\text{W}$
	$R_{\theta JL}$	25						
Operating and Storage Temperature Range	$T_J, T_{STG}$	-55to+150						$^\circ\text{C}$

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 FORWARD CURRENT DERATING CURVE

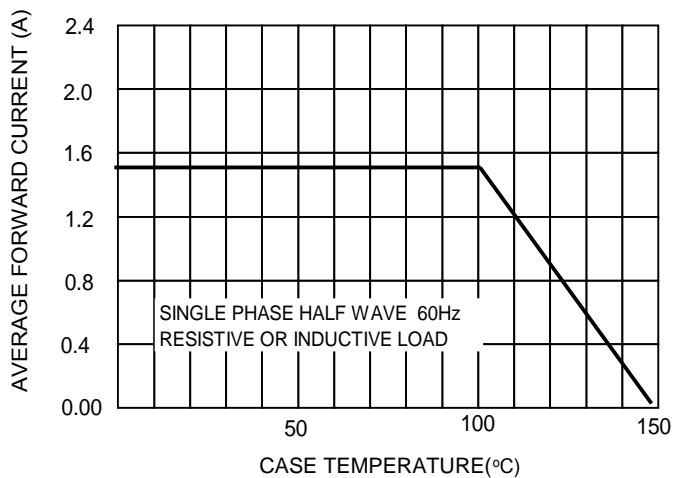


FIG.2 TYPICAL FORWARD CHARACTERISTICS

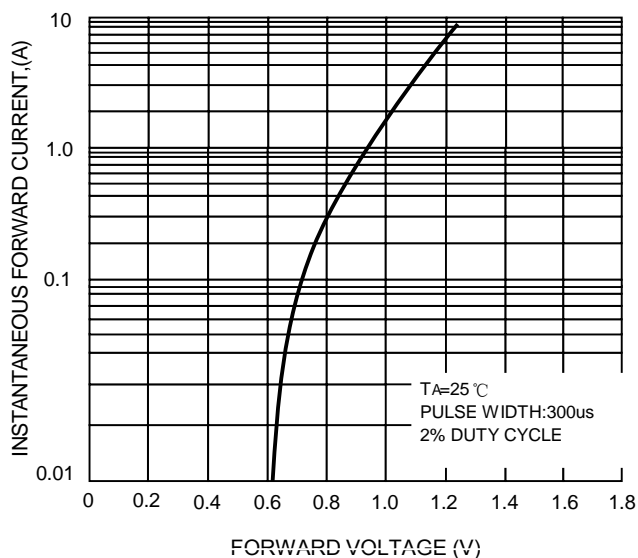


Fig. 3 Maximum Peak Forward Surge Current

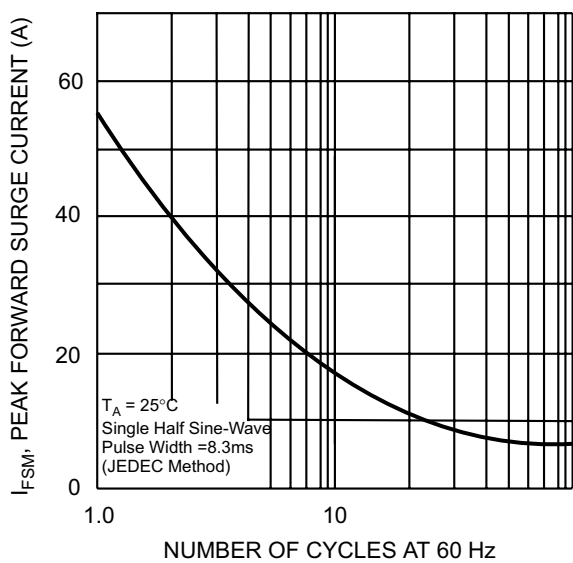


Fig. 4 Typical Reverse Characteristics

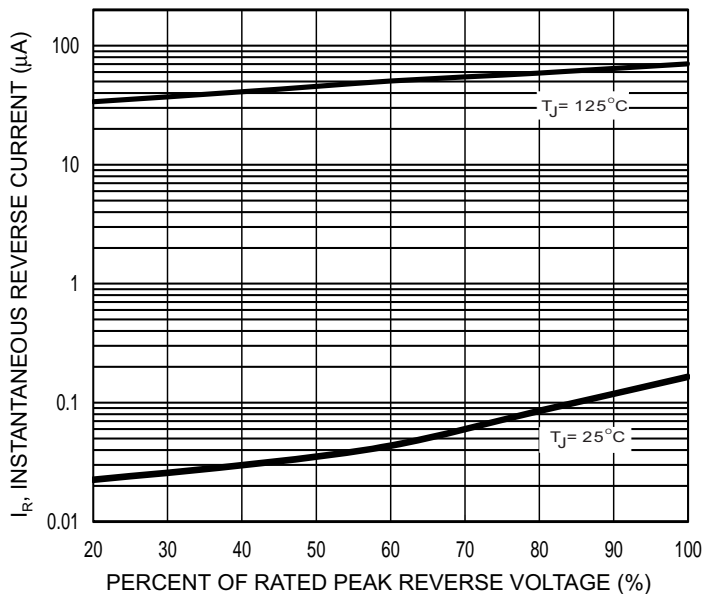
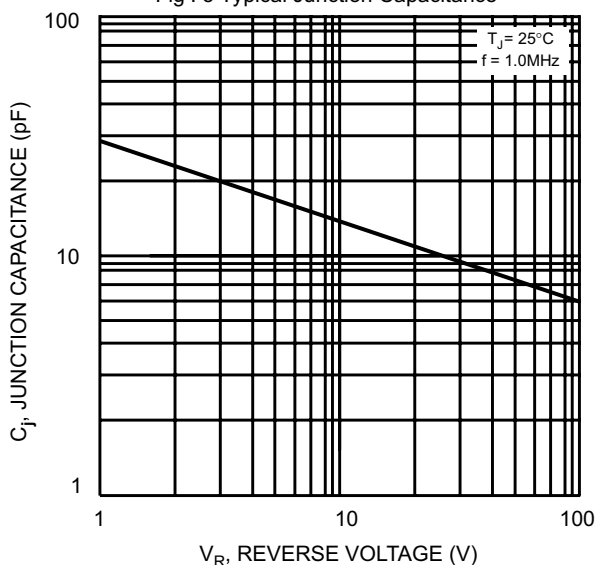
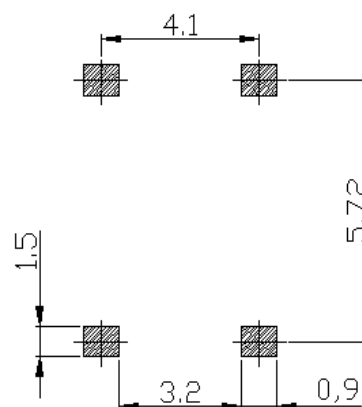


Fig. 5 Typical Junction Capacitance



## ABS PAD LAYOUT





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