



# CHANGZHOU LANGJIE ELECTRONIC

## SURFACE MOUNT FAST SWITCHING RECTIFIER

### ABS1501 THRU ABS1510

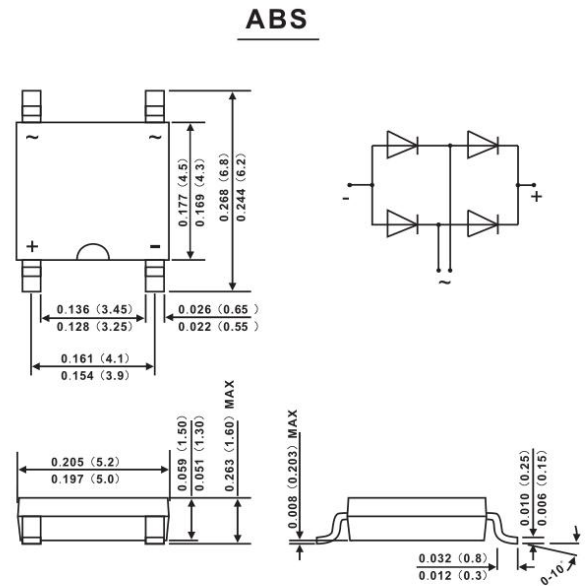
**VOLTAGE RANGE**
**100 to 1000 Volts**
**CURRENT**
**1.5 Ampere**

## Features

- Glass passivated chip junction
- Ideal for surface mounted applications
- Low leakage
- High forward surge current capability
- High temperature soldering guaranteed:  
260°C/10 seconds at terminals

## Mechanical Data

- Case: Molded plastic body
- Epoxy: UL94V-0 rate flame retardant
- Polarity: Molded on body
- LeadP: Plated terminals solderable per MIL-STD-202E method 208C
- Weight: 0.003 ounce, 0.10 grams



Dimensions in inches and (millimeters)

## 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 derate current by 20%

TYPE NUMBER	SYMBOLS	ABS1501	ABS1502	ABS1504	ABS1506	ABS1508	ABS1510	UNIT
Maximum Reverse Peak Repetitive Voltage	$V_{RRM}$	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	$V_{RMS}$	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	$V_{DC}$	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Output Current, 0.06"(1.5mm) lead length at $T_L=100^\circ\text{C}$	$I_{(AV)}$	1.5						Amps
Peak Forward Surge Current 8.3ms single half sine wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	50						Amps
Rating for Fusing ( $t < 8.3\text{ms}$ )	$I^2t$	3.7						$\text{A}^2\text{s}$
Maximum Instantaneous Forward Voltage drop Per Bridge element 1.5A	$V_F$	1.1						Volts
Maximum Reverse Current at rated DC blocking voltage per element	TA=25°C	5						$\mu\text{Amps}$
	TA=125°C	50						
Typical Junction Capacitance (NOTE 1)	$C_J$	30						pF
Typical Thermal Resistance (NOTE 2)	$R_{\theta JA}$	65						°C/W
Operating and Storage Temperature Range	$T_J, T_{STG}$	(-55 to +150)						°C

### Notes:

1. Measured at 1.0MHz and applied reverse voltage of 4.0 Volts.
2. Unit mounted on P.C.B. with 0.033"x0.043"(1.00mm×1.30mm) copper pads.



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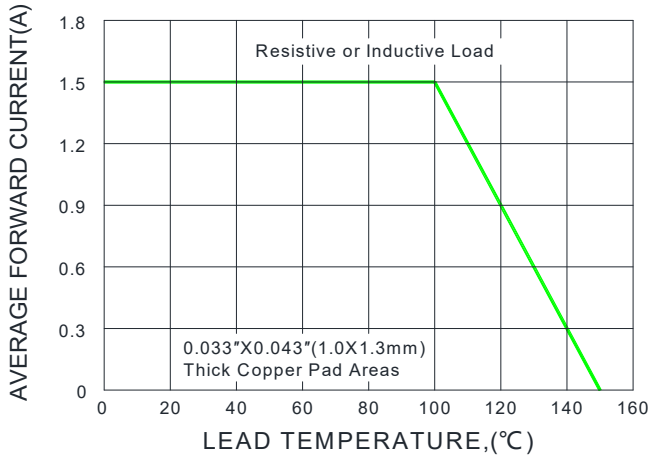
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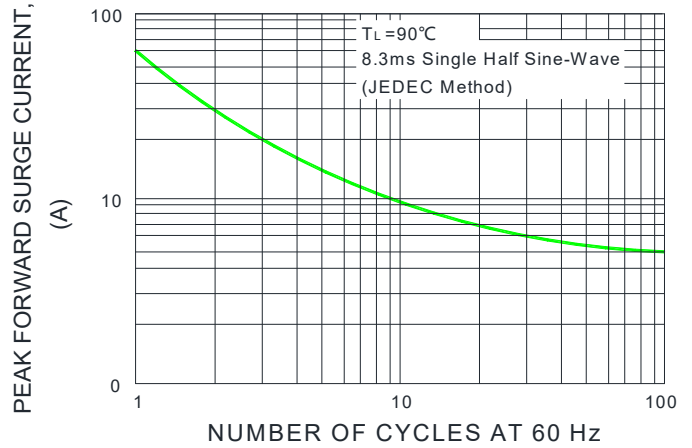
### ABS1501 THRU ABS1510

### Ratings and Characteristic Curves (TA=25°C unless otherwise noted)

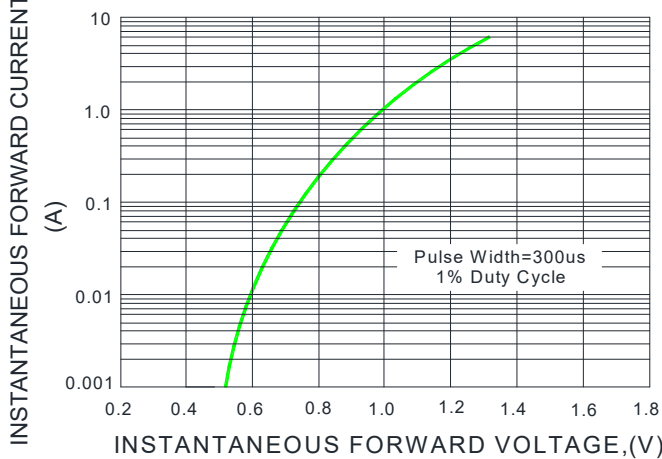
F1G.1-FORWARD CURRENT DERATING CURVE



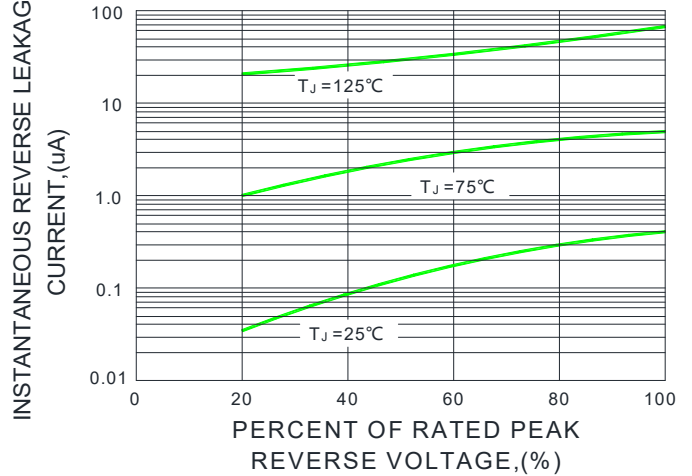
F1G.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



F1G.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



F1G.4-TYPICAL REVERSE CHARACTERISTICS



F1G.5-TYPICAL JUNCTION CAPACITANCE

