



# 3DSR0.3A~3DSR0.3M

## Surface Mount Standard Rectifiers

### Features

- Low profile space
- Ideal for automated placement
- Glass passivated chip junctions
- Low forward voltage drop
- Low leakage current
- High forward surge capability
- High temperature soldering:  
260°C/10 seconds at terminals



SOD-323



### Mechanical Data

- **Case:** SOD-323 molded plastic body over glass passivated chip
- **Terminals:** Solder plated, solderable per JESD22-B102
- **Polarity:** Laser band denotes cathode end
- **Weight:** 0.0063gram

### Major Ratings and Characteristics

$I_{F(AV)}$	0.3A
$V_{RRM}$	50 V to 1000 V
$I_{FSM}$	15 A
$I_R$	5 $\mu$ A
$V_F$	1.31V
$T_j \text{ max.}$	150 °C

### Maximum Ratings & Thermal Characteristics

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

Items	Symbol	3DSR 0.3A	3DSR 0.3B	3DSR 0.3D	3DSR 0.3G	3DSR 0.3J	3DSR 0.3K	3DSR 0.3M	UNIT
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	$I_{F(AV)}$	0.3							A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	$I_{FSM}$	15							A
Thermal resistance from junction to lead <sup>(1)</sup>	$R_{\theta JL}$	35							°C/W
Operating junction range	$T_J$	-55 to +150							°C
storage temperature range	$T_{STG}$	-55 to +150							°C

Note 1: Mounted on PCB with 0.2 x 0.2" (5.0 x 5.0mm) copper pad areas.

### Electrical Characteristics ( $T_A = 25^\circ\text{C}$ unless otherwise noted)

Items	Test conditions	Symbol	Min	Type	Max	UNIT
Instantaneous forward voltage	$I_F=0.3A^{(2)}$	$V_F$	-	0.95	1.10	V
Reverse current	$V_R=V_{DC}$	$I_R$	-	-	5	$\mu$ A
					50	

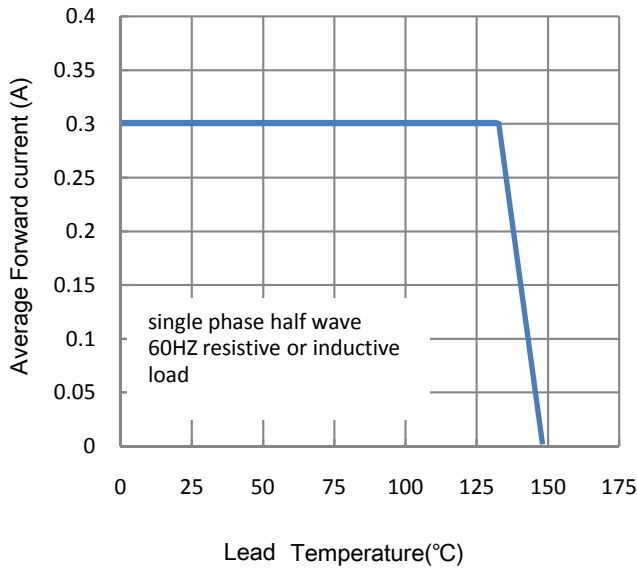
Note 2: Pulse test:300 $\mu$ s pulse width,1% duty cycle.



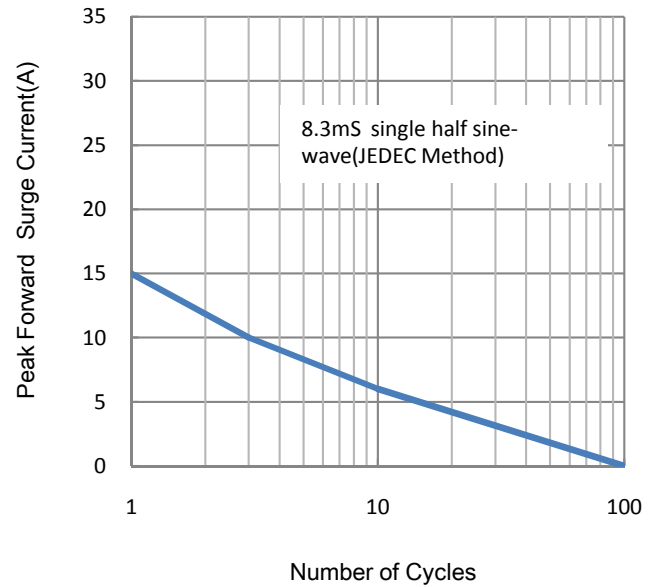
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**Characteristic Curves** ( $T_A=25\text{ }^\circ\text{C}$  unless otherwise noted)

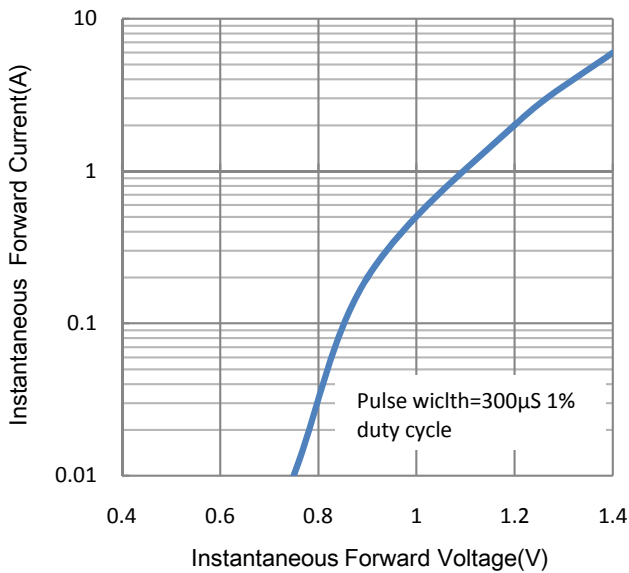
**Fig1. Forward current deating cure**



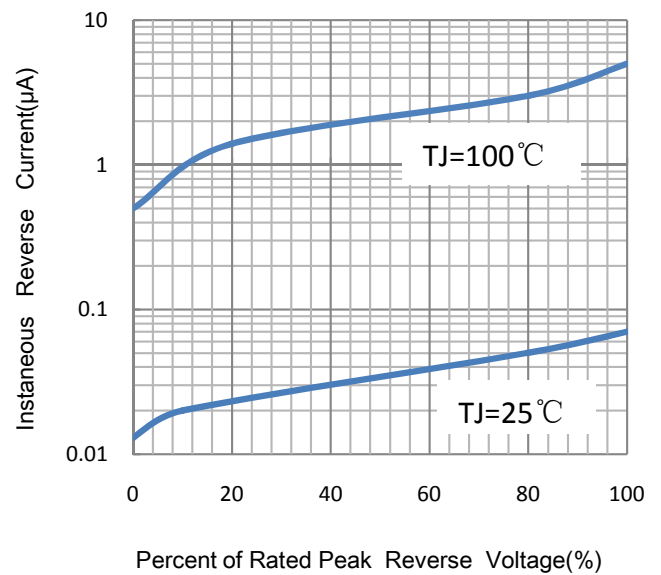
**Fig2. Maximum Non-Repetitive peak forward surge current**



**Fig3. Typical Instantaneous Forward Characteristics**



**Fig.4 Typical Reverse Characteristics**

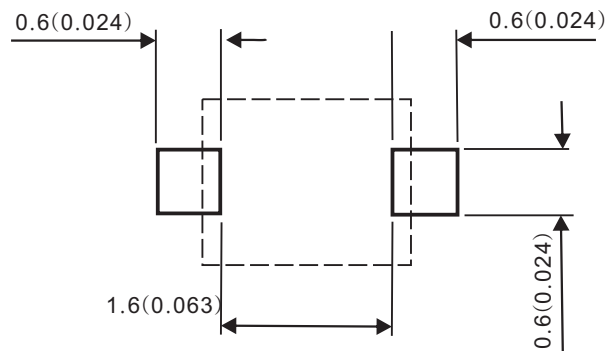
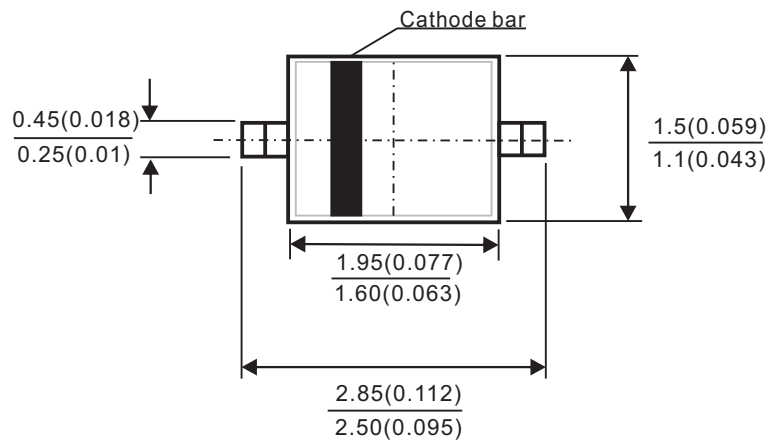
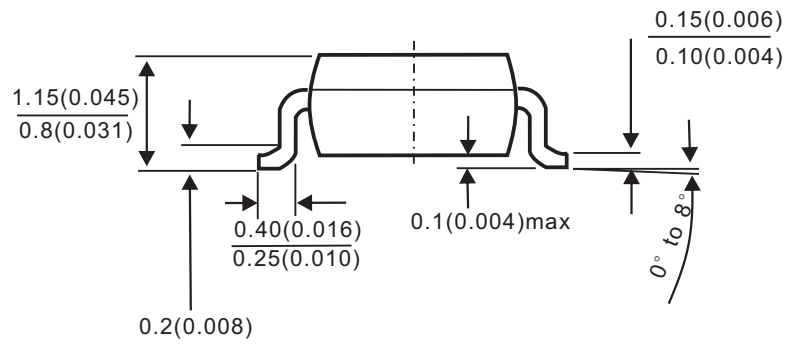




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Foot print recommendation

