

SOD-323 Plastic-Encapsulate Diodes

Surface Mount Fast Recovery Rectifiers

Features

- I_O 0.3A
- VRRM 50V-1000V
- Low forward voltage drop
- High surge current capability

Mechical Data

- Case: SOD-323 molded plastic
- Molding compound: UL flammability classification rating 94V-0
- Terminals: Solder plated, solderable per MIL- STD-202, Method 208
- Polarity: Color band denotes cathode end

SOD- 323



Marking

- 3DFR0.3A-3DFR0.3M: F1-F7

Maximum Ratings & Thermal Characteristics

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

Items	Symbol	3DFR 0.3A	3DFR 0.3B	3DFR 0.3D	3DFR 0.3G	3DFR 0.3J	3DFR 0.3K	3DFR 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}	10							A
Thermal resistance from junction to lead ⁽¹⁾	$R_{\theta JL}$	35							$^\circ\text{C}/\text{W}$
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +125							$^\circ\text{C}$

Note 1: Mounted on P.C.B. with 0.036 x 0.06" (0.9 x 1.5mm) copper pad areas.

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

Items	Test conditions		Symbol	3DFR0.3A~0.3G	3DFR0.3J	3DFR0.3K~0.3M	UNIT
Instantaneous forward voltage	$I_F=0.3A^{(2)}$		V_F	1.3			V
Maximum reverse current	$V_R=V_{DC}$	$T_j=25^{\circ}C$	I_R	5			μA
		$T_j=125^{\circ}C$		50			
Reverse recovery time	$I_F=0.5A$ $I_R=1A$, $I_{rr}=0.25A$		t_{rr}	150	250	500	nS

Note 2: Pulse test:300 μs pulse width,1% duty cycle.

Fig1 .Forwardcurrent deating cure

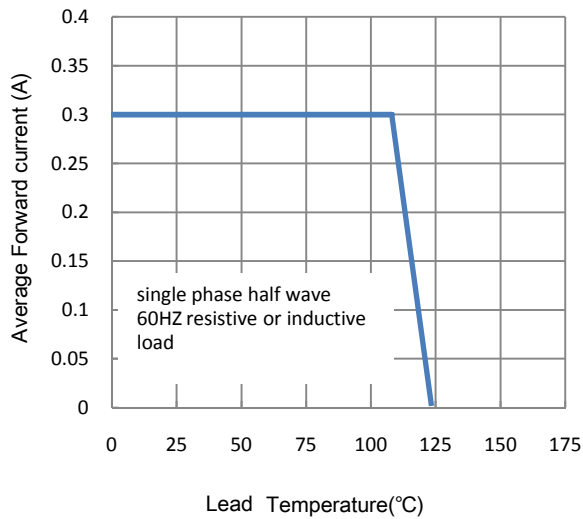


Fig2.MaximumNon-Repetitive peak forward surge current

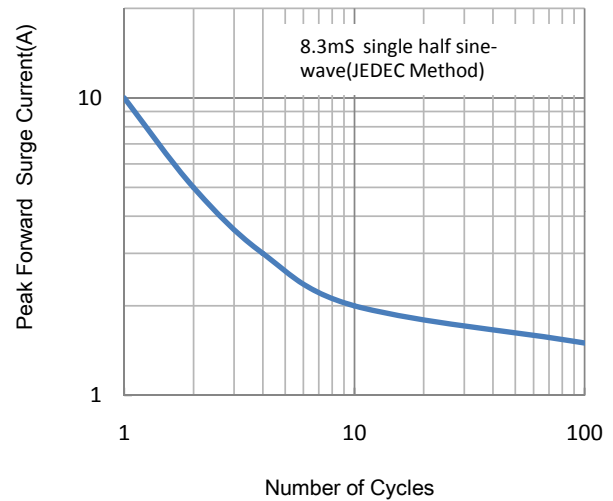


Fig 3 .Typical Instantaneous Forward Characteristics

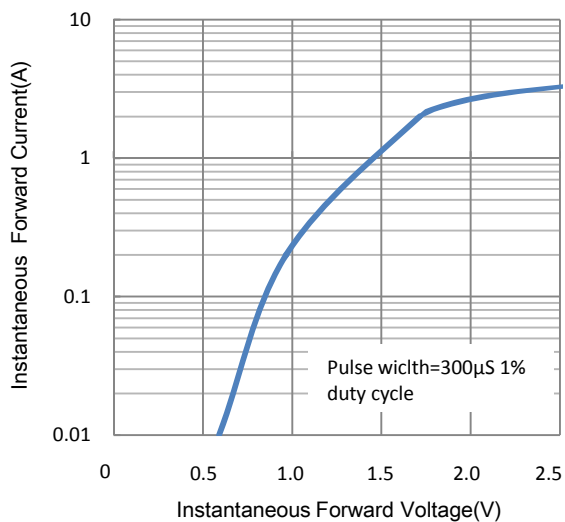
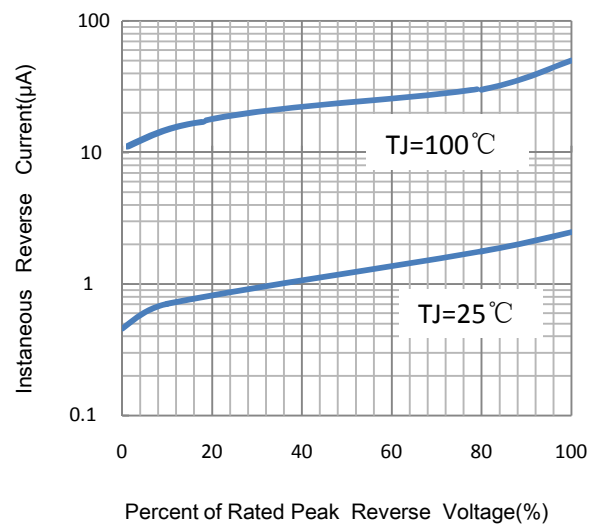
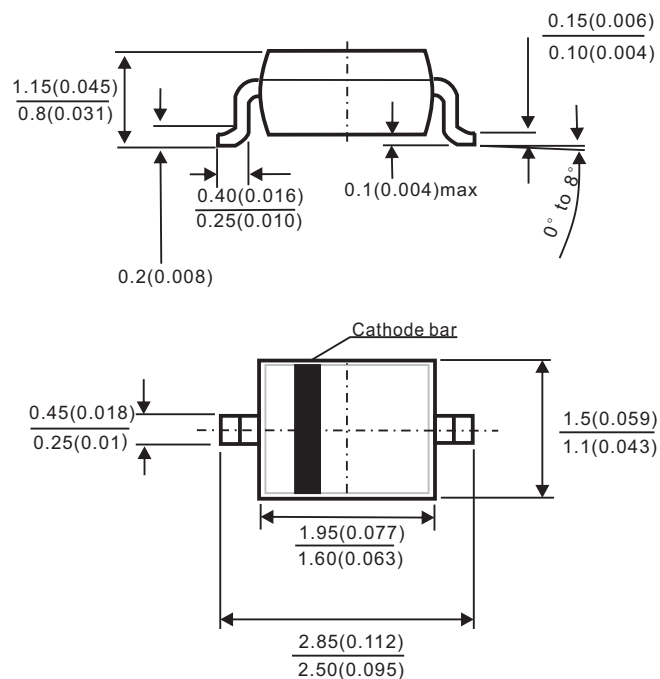


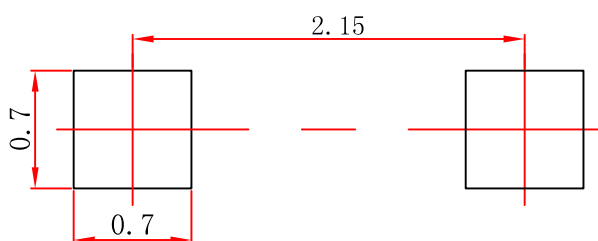
Fig.4 Typical Reverse Characteristics



SOD-323 Package Outline Dimensions



SOD-323 Suggested Pad Layout



Note:

1. Controlling dimension: in millimeters.
2. General tolerance: $\pm 0.05\text{mm}$.
3. The pad layout is for reference purposes only.

NOTICE

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