

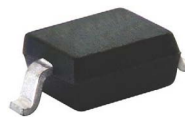


3DFR0.3A~3DFR0.3M

Surface Mount Fast Recovery 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



RoHS
COMPLIANT

Mechanical Date

- **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}	10 A
I_R	5 μ A
V_F	1.3 V
$T_J \text{ max.}$	150 °C

Maximum Ratings & Thermal Characteristics

($T_A = 25\text{ °C}$ 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							°C/W
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +150							°C

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

Electrical Characteristics ($T_A = 25\text{ °C}$ 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	$V_R=V_{DC}$	I_R	$T_J=25\text{ °C}$			5
			$T_J=125\text{ °C}$			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 μ s pulse width,1% duty cycle.





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

Fig1 .Forwardcurrent deating cure

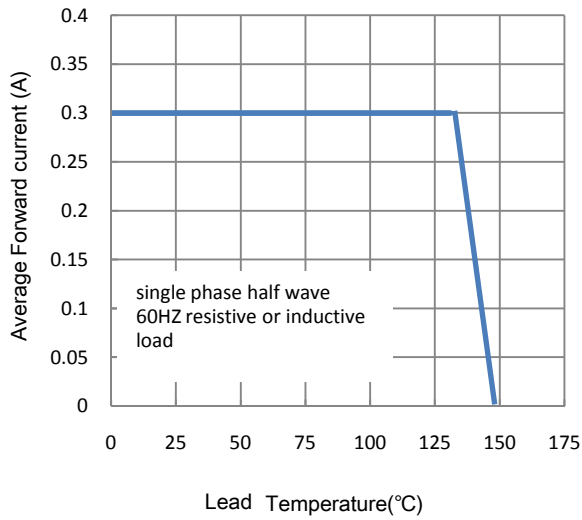


Fig2.MaximumNon-Repetitive peak forward surge current

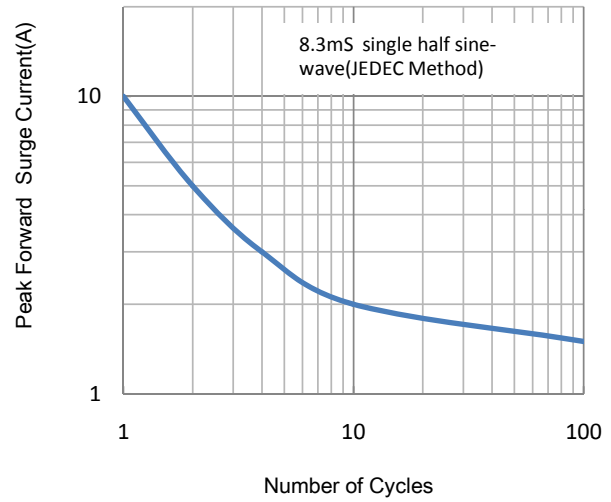


Fig3 .Typical Instantaneous Forward Characteristics

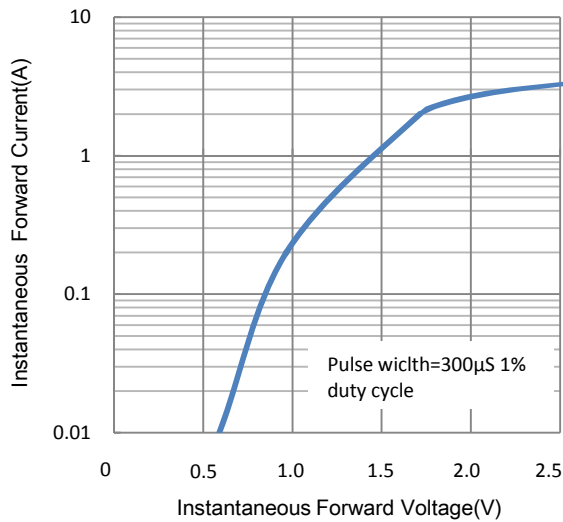
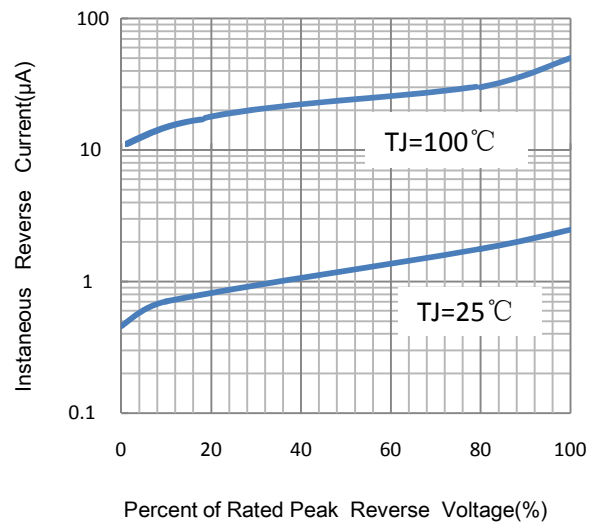


Fig.4 Typical Reverse Characteristics





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Package Outline

SOD-323

