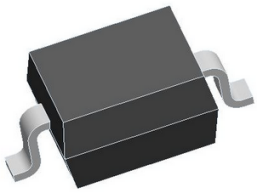
SOD-323 Plastic-Encapsulate Diodes

Surface Mount Standard Rectifiers

Features

- I_O 1A
- VRRM 50V-1000V
- Low forward voltage drop
- High surge current capability

SOD- 323



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

Marking

- 3DSR1A-3DSR1M: A1-A7

Maximum Ratings & Thermal Characteristics

(T_A = 25 °C unless otherwise noted)

Items	Symbol	3DSR 1A	3DSR 1B	3DSR 1D	3DSR 1G	3DSR 1J	3DSR 1K	3DSR 1M	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 at T_L =90℃	$I_{F(AV)}$	1							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							℃/ W
Operating junction range	T_J	–55 to +125							℃
storage temperature range	T_{STG}	–55 to +125							℃

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

Electrical Characteristics (T_A = 25 °C unless otherwise noted)

Items	Test conditions		Symbol	Min	Type	Max	UNIT
Instantaneous forward voltage	I_F=0.5A		V_F	-	0.95	-	V
	I_F=1A (2)				1	1.15	
Reverse current	V_R=V_{DC}	T_A=25℃	I_R	-	-	5	μA
		T_A=125℃				50	

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

Typical Characteristics

Fig.1 Forward Current Derating Curve

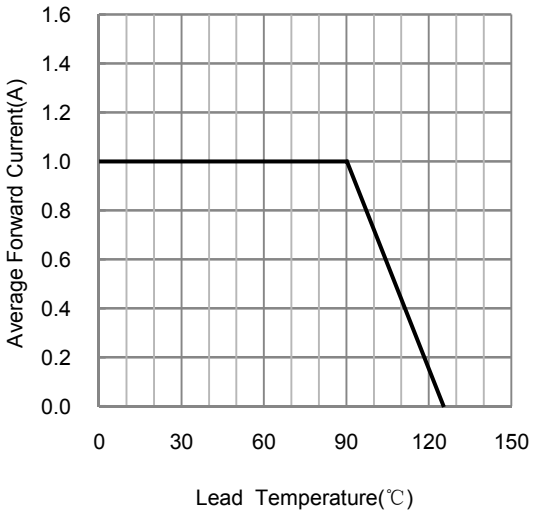


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

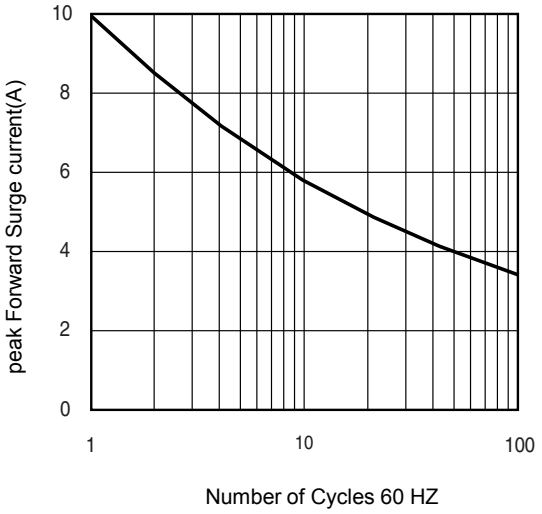


Fig.3 Typical Instantaneous Forward Characteristics

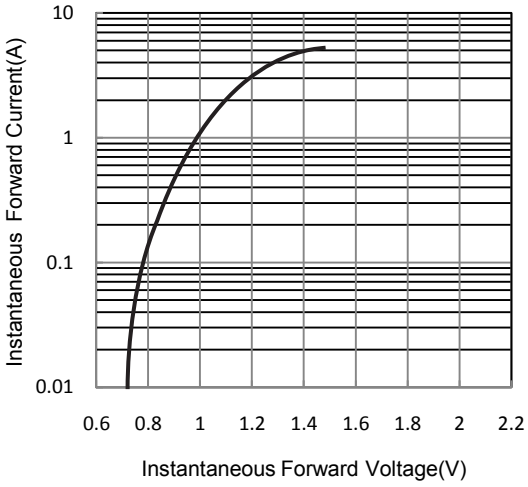
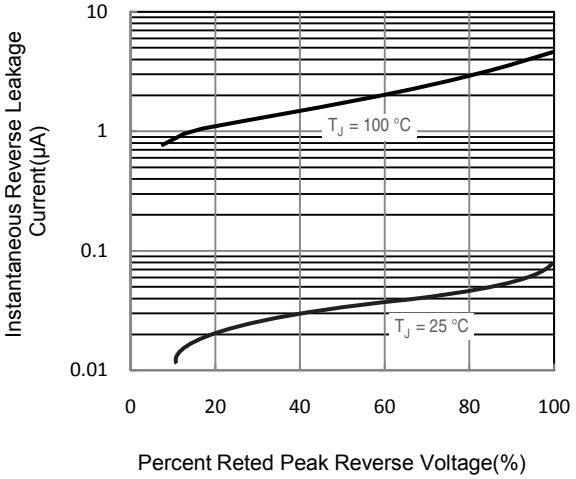
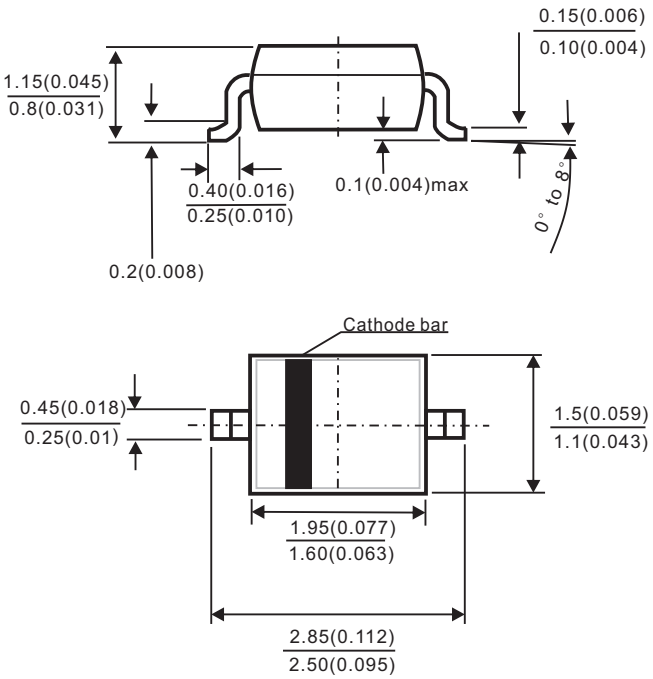


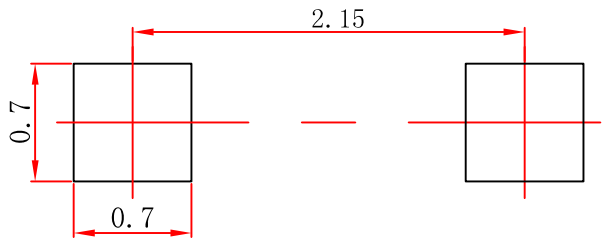
Fig.4 Typicl Reverse Leakage Characteristics



SOD-323 Package Outline Dimensions



SOD-323 Suggested Pad Layout



Note:
1.Controlling dimension:in millimeters.
2.General tolerance:±0.05mm.
3.The pad layout is for reference purposes only.

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