

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



Mechanical Data

- SOD-323 molded plastic body over glass passivated chip
- Solder plated, solderable per JESD22-B102
- Laser band denotes cathode end

SOD323

Maximum Ratings & Thermal Characteristics (T_A = 25 °C unless otherwise noted)

Items	Symbol	1N4007WS	UNIT
Maximum repetitive peak reverse voltage	V _{RRM}	1000	V
Maximum RMS voltage	V _{RMS}	700	V
Maximum DC blocking voltage	V _{DC}	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}	25	A
Thermal resistance from junction to lead ⁽¹⁾	R _{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 °C unless otherwise noted)

Items	Test conditions		Symbol	Min	Type	Max	UNIT
Instantaneous forward voltage	I _F =0.5A		V _F	-	0.92	-	V
	I _F =1A ⁽²⁾				0.98	1.1	
Reverse current	V _R =V _{DC}	T _A =25°C	I _R	-	-	5	uA
		T _A =125°C				50	

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

Fig.1 Forward Current Derating Curve

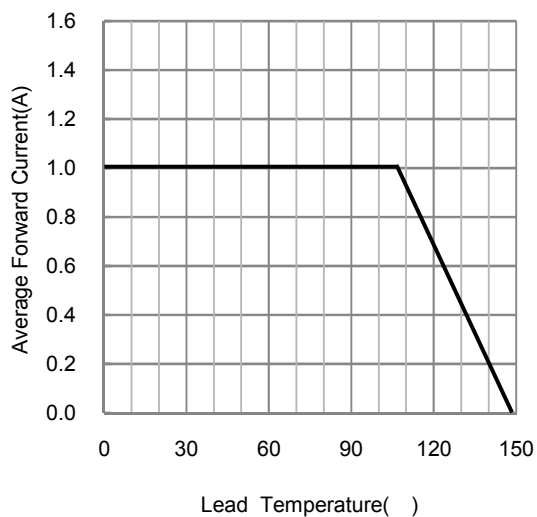


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

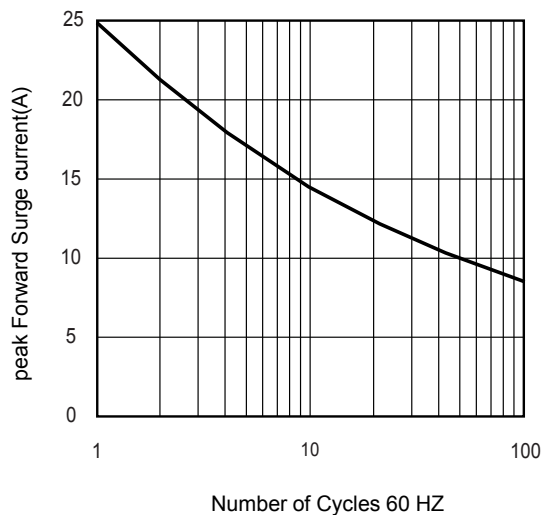


Fig.3 Typical Instantaneous Forward Characteristics

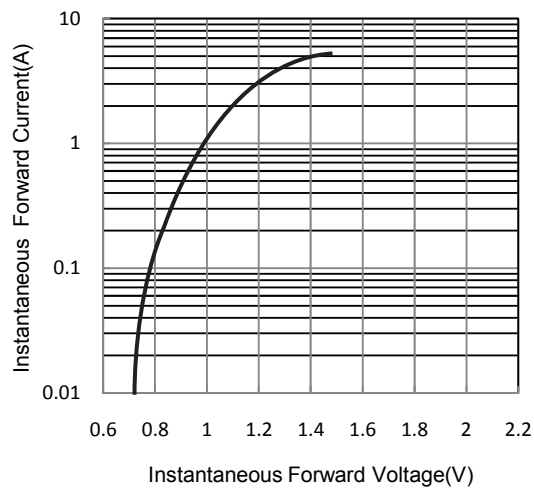
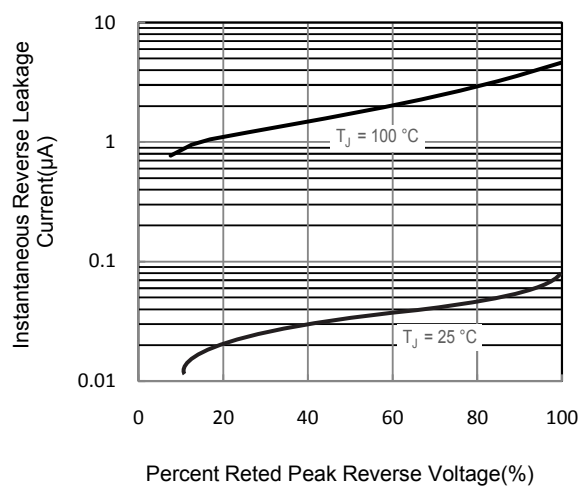
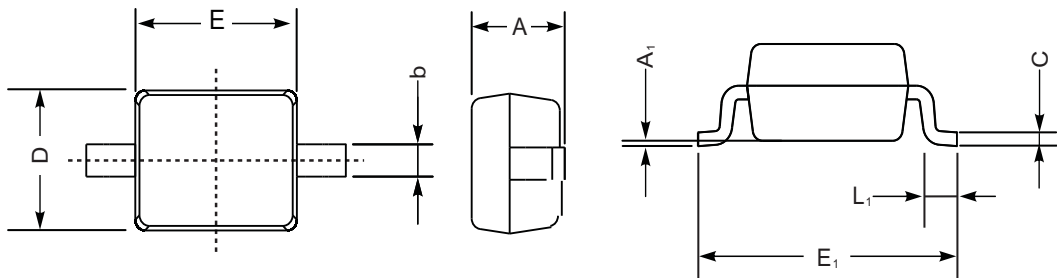


Fig.4 Typical Reverse Leakage Characteristics



SOD323



UNIT		A	C	D	E	E ₁	b	L ₁	A ₁
mm	max	1.1	0.15	1.4	1.8	2.75	0.4	0.45	0.2
	min	0.8	0.08	1.2	1.4	2.55	0.25	0.2	—
mil	max	43	5.9	55	70	108	16	16	8
	min	32	3.1	47	63	100	9.8	7.9	—

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