



1. Features

SOD-323

- Small surface mounting type
- High Reliability



2. Mechanical Data

- Case:Molded Plastic,SOD-323.
- Epoxy:UL 94V-0 rate flame retardant.
- Terminals:Plated Leads Solderable per MIL-STD-750, Method-2026.
- Marking: S7.
- Marking:marked on body.

3. Maximum Ratings

Electrical Characteristics Rating at 25°C ambient temperature unless otherwise specified.

Characteristic	Symbol	Limit	Unit
Continuous Forward Current	I_O	0.1	A
Peak Reverse Voltage	V_{RM}	45	V
Peak Forward Surge Current (8.3 ms)	I_{FSM}	1	A
DC Reverse Voltage	V_R	40	V
Junction Temperature	T_J	125	°C
Storage Temperature Range	T_{stg}	-40to+125	°C

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

Parameters	Symbol	Cindition	Min	TYP	Max	Unit
Forward Voltage	V_F	$I_F = 100\text{mA}$	-	-	0.55	V
		$I_F = 10\text{mA}$	-	-	0.34	
Reverse Current	I_R	$V_R=10\text{V}$	-	-	30	μA
Capacitance Between Terminals	C_T	$V_R = 10\text{V}, f = 1\text{MHz}$	-	6	-	pF

Note: ESD sensitive product handling required.



5. Rating And Characteristic Curves

Fig.1 Forward Characteristics

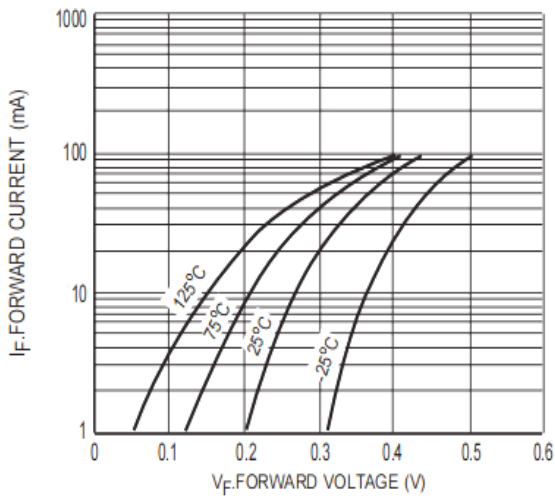


Fig.2 Reverse Characteristics

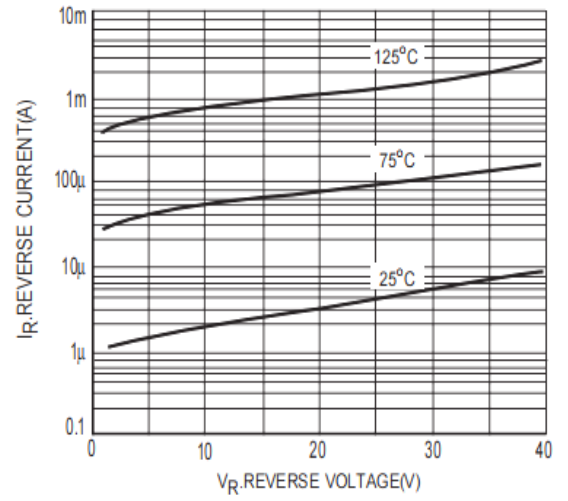


Fig.3 Capacitance Characteristics

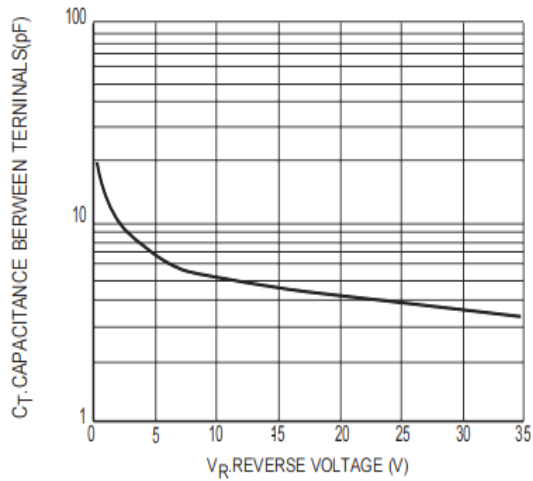
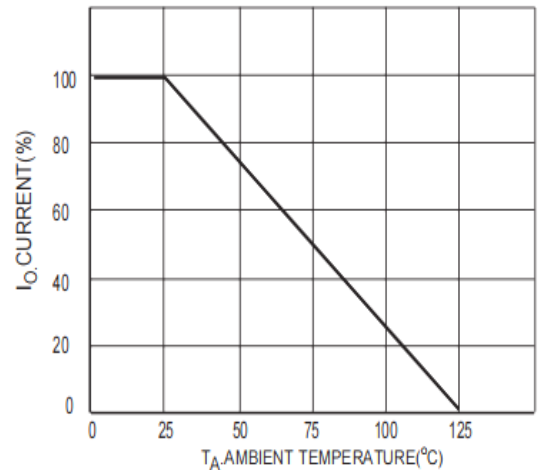
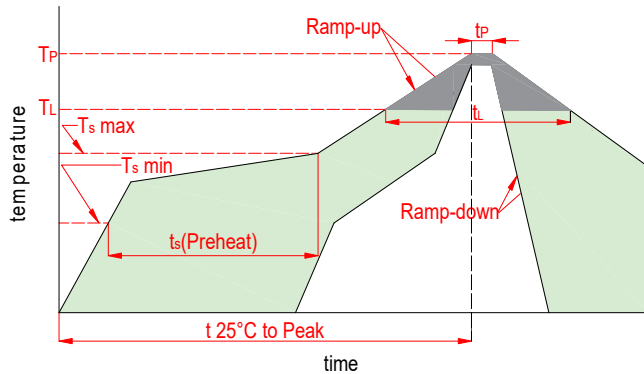
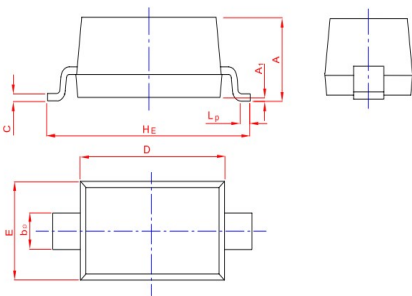


Fig.4 Derating Curve



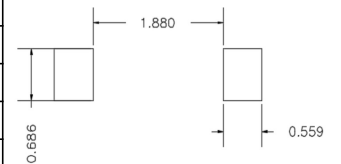
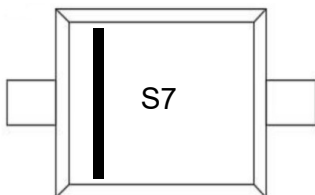
**6. Soldering Parameters**

Reflow Condition		Lead-free
Pre Heat	Temp. min(T_s (min))	150℃
	Temp. max(T_s (min))	200℃
	Time(min to max)(t_s)	60~120s
Aver. ramp up rate(Liquidus Temp.)(T_L)to peak		3℃/s max
T_s (max) to T_L -Ramp-up Rate		3℃/s max
Reflow	Temp. (T_L)(Liquidus)	217℃
	Temp. (t_L)(Liquidus)	60~150s
Peak Temp. (T_P)		260 ^{+0/-5} ℃
Time within actual peak Temp. (t_p)		30s max
Ramp-down Rate		6℃/s max
Time 25℃ to peak Temp. (T_p)		8 minutes max
Do not exceed		260℃

7. Dimensions

Dimensions	Inches		Millimeters	
	Min	Max	Min	Max
A	0.031	0.047	0.800	1.200
bp	0.010	0.016	0.250	0.400
C	0.003	0.006	0.080	0.150
D	0.063	0.071	1.600	1.800
E	0.045	0.055	1.150	1.400
HE	0.091	0.110	2.300	2.800
A1	0.000	0.004	0.010	0.100
LP	0.008	0.020	0.200	0.500

Mounting PAD Layout

**8. Part Marking System****9. Package Information**

Package	Type	Marking Code	Tape Width (mm)	Quantity(pcs)
0	RB501V-40	S7	8	3000



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