



1. Features

SOD-323

- Small surface mounting type
- Ultra low VF
- 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: D
- 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	0.5	A
Peak Reverse Voltage	V_{RM}	30	V
Peak Forward Surge Current (8.3 ms)	I_{FSM}	2	A
DC Reverse Voltage	V_R	20	V
Junction Temperature	T_J	-40 to+125	°C
Storage Temperature Range	T_{stg}	-40 to+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	$I_F = 100\text{mA}$	-	-	0.36	V
		$I_F = 500\text{mA}$			0.47	
Reverse Current	I_R	$V_R=20\text{V}$	-	-	100	μA

Note: ESD sensitive product handling required.



5. Rating And Characteristic Curves

Fig.1 Forward Characteristics

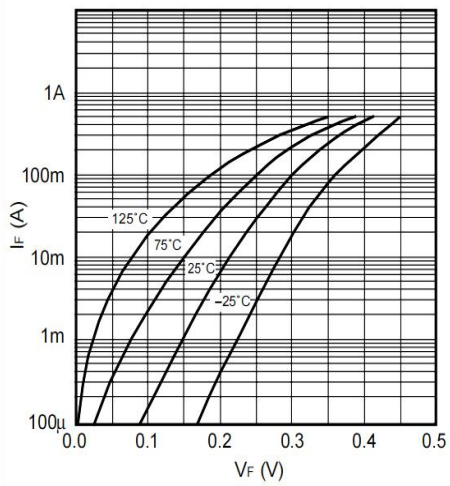


Fig.2 Reverse Characteristics

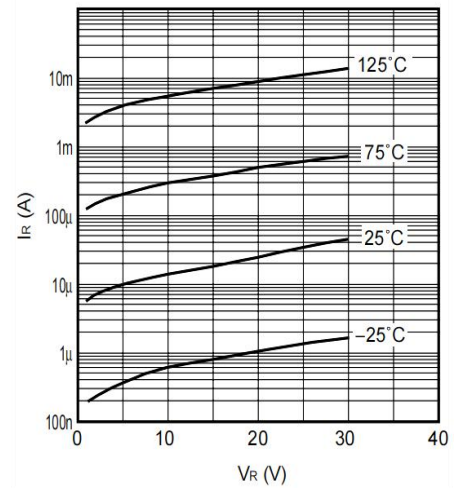


Fig.3 Capacitance Characteristics

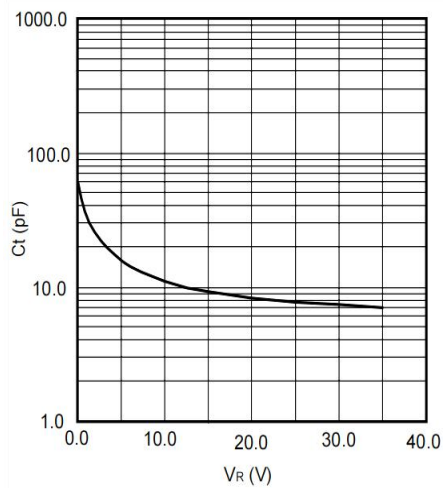
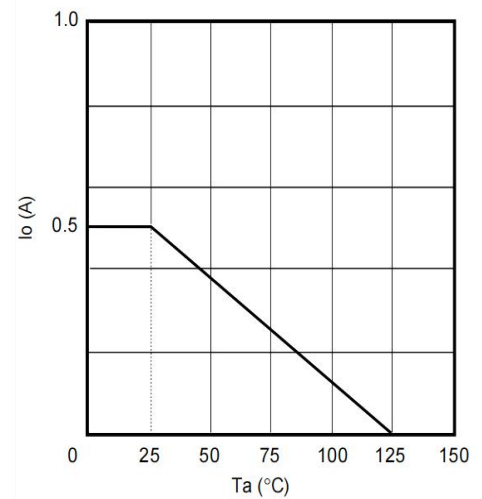
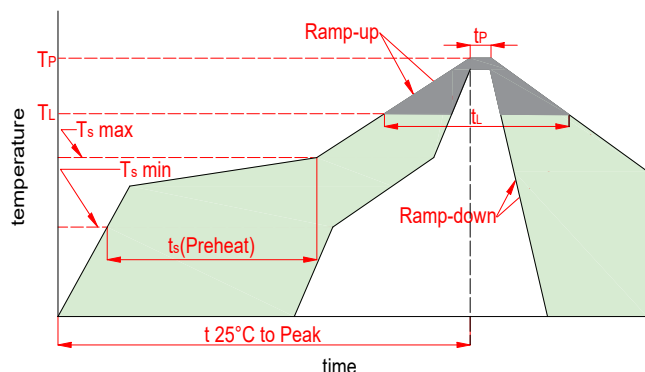


Fig.4 Derating Curve



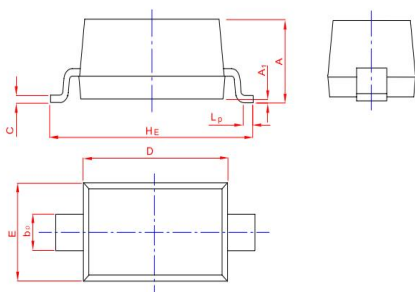


6. Soldering Parameters



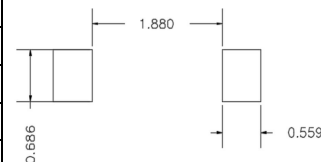
Reflow Condition		Lead-free
Pre Heat	Temp. min(T_s (min))	150℃
	Temp. max(T_s (min))	200℃
	Time(min to max)(t_s)	60~120s
Aver. ramp up rate(Liquidus Temp.)(T_L)to peak		3℃/s max
T_s (max) to T_L -Ramp-up Rate		3℃/s max
Reflow	Temp.(T_L)(Liquidus)	217℃
	Temp.(t_L)(Liquidus)	60~150s
Peak Temp.(T_P)		260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

7. Dimensions

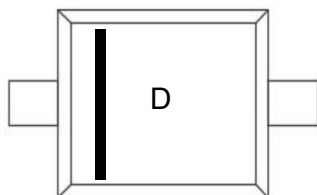


Dimensions	Inches		Millimeters	
	Min	Max	Min	Max
A	0.031	0.047	0.800	1.200
bp	0.010	0.016	0.250	0.400
C	0.003	0.006	0.080	0.150
D	0.063	0.071	1.600	1.800
E	0.045	0.055	1.150	1.400
HE	0.091	0.110	2.300	2.800
A1	0.000	0.004	0.010	0.100
Lp	0.008	0.020	0.200	0.500

Mounting PAD Layout



8. Part Marking System



9. Package Information

Package	Part Number	Marking Code	Quantity(pcs)
SOD-323	RB551V-30	D	3000



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