



1. Features

- Extremely small surface mounting type
- High reliability

SOD-323



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:R9
- Marking:marked on body.

3. Maximum Ratings

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

Characteristic	Symbol	Value	Unit
Peak Reverse Voltage	V_{RM}	25	V
Reverse Voltage	V_R	20	V
Average Forward Current	I_O	300	mA
Peak Forward Current	I_{FM}	700	mA
Power Dissipation	P_D	100	mW
Operating Temperature Range	T_j	125	°C
Operating And Storage Temperature Range	T_{stg}	-55 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	$I_F = 300\text{mA}$	-	-	0.45	V
Leakage current	I_R	$V_R = 20\text{V}$	-	-	50	μA
Total capacitance	C_{tot}	$V_R = 0\text{ V}, f = 1\text{ MHz}$	-	46	-	pF



5. Rating And Characteristic Curves

Fig.1 Forward Characteristics

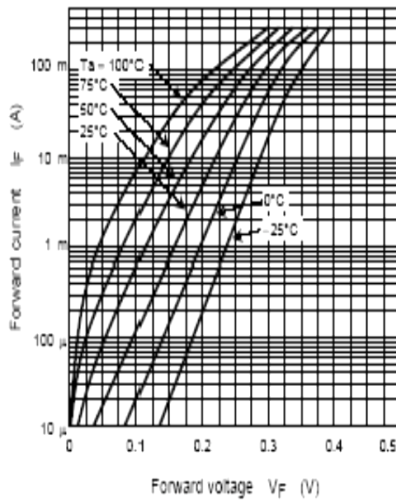


Fig.2 Reverse Characteristics

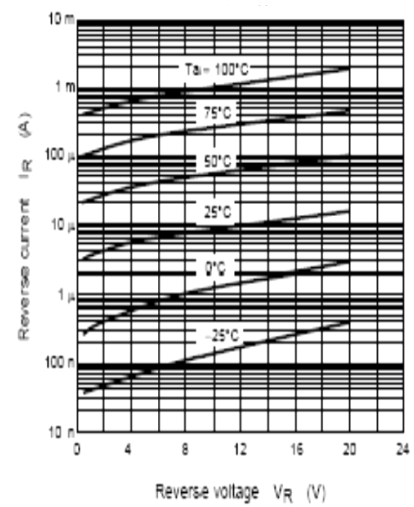


Fig.3 Capacitance Characteristics

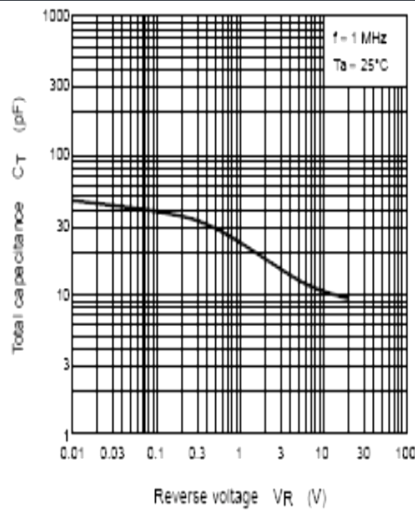
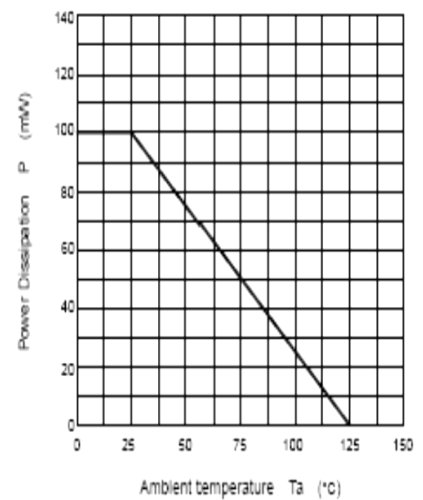
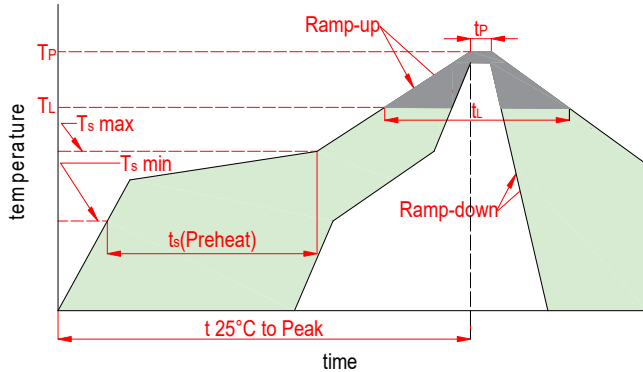


Fig.4 Power Derating Curve



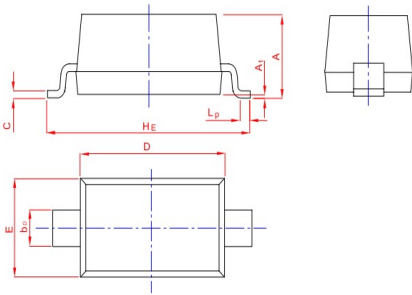


6. Soldering Parameters



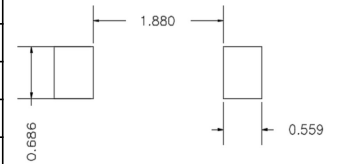
Reflow Condition		Lead-free
Pre Heat	Temp. min(T_s (min))	150°C
	Temp. max(T_s (min))	200°C
	Time(min to max)(t_s)	60~120s
Aver. ramp up rate(Liquidus Temp.)(T_L)to peak		3°C/s max
T_s (max) to T_L -Ramp-up Rate		3°C/s max
Reflow	Temp. (T_L)(Liquidus)	217°C
	Temp. (t_L)(Liquidus)	60~150s
Peak Temp. (T_P)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

7. Dimensions

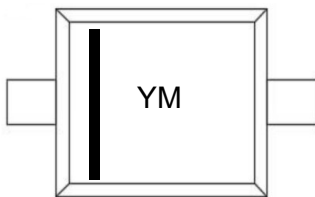


Dimensions	Inches		Millimeters	
	Min	Max	Min	Max
A	0.031	0.047	0.800	1.200
bp	0.010	0.016	0.250	0.400
C	0.003	0.006	0.080	0.150
D	0.063	0.071	1.600	1.800
E	0.045	0.055	1.150	1.400
HE	0.091	0.110	2.300	2.800
A1	0.000	0.004	0.010	0.100
Lp	0.008	0.020	0.200	0.500

Mounting PAD Layout



8. Part Marking System



9. Package Information

Package	Type	Marking Code	Tape Width (mm)	Quantity(pcs)
SOD-323	1SS404WS	YM	8	3000



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