



1. Features

- Low forward voltage

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: SY
- Marking: marked on body.

3. Maximum Ratings

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

Characteristic	Symbol	Value	Unit
Maximum (Peak) Reverse Voltage	V_{RM}	15	V
Reverse Voltage	V_R	10	V
Maximum (Peak) Forward Current	I_{FM}	200	mA
Average Forward Current	I_O	100	mA
Surge Forward Current (10 ms)	I_{FSM}	1	A
Power Dissipation	P_D	150	mW
Operating Temperature Range	T_{opr}	-40 to +100	°C
Junction Temperature	T_J	-55 to +125	°C
Storage Temperature Range	T_{stg}	-55 to +125	°C

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

Parameters	Symbol	Condition	Min	TYP	Max	Unit
Forward Voltage	V_F	$I_F = 5\text{mA}$	-	-	0.3	V
		$I_F = 100\text{mA}$	-	-	0.5	
Reverse Current	I_R	$V_R = 10\text{V}$	-	-	20	μA
Total Capacitance	C_T	$V_R = 0\text{V}, f = 1\text{MHz}$	-	-	40	pF



5. Rating And Characteristic Curves

Fig.1 Typical Forward Characteristics

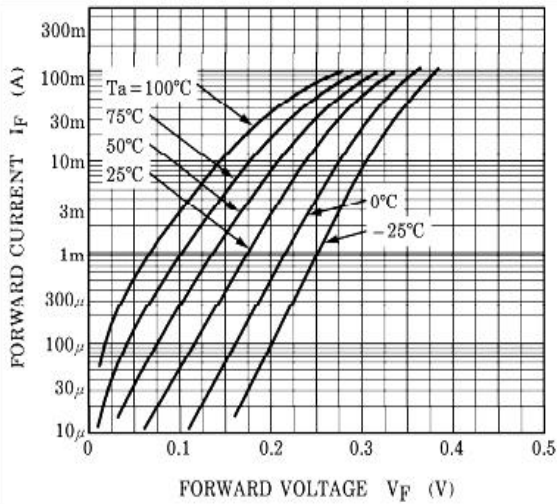


Fig.2 Typical Reverse Characteristics

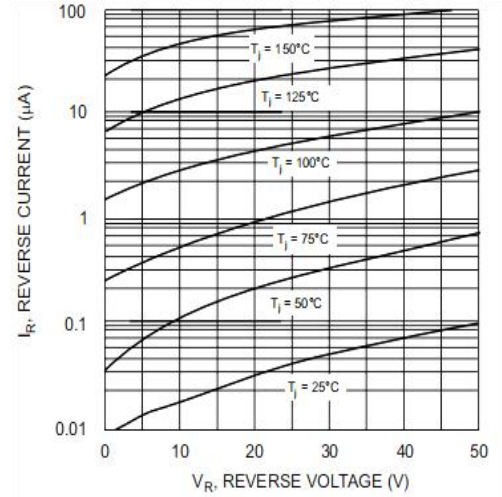


Fig.3 Typ.Total Capacitance vs Reverse Voltage

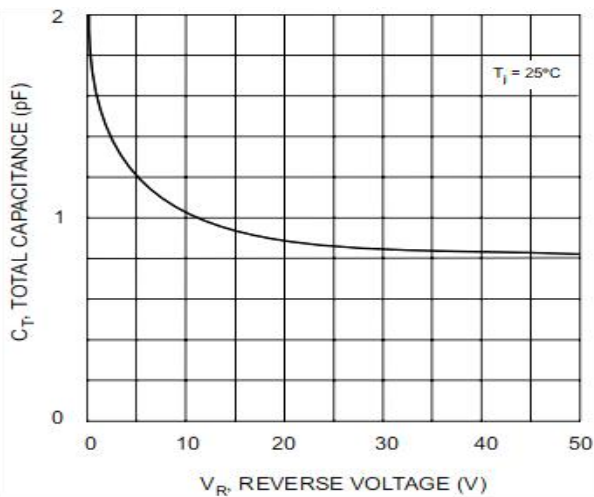
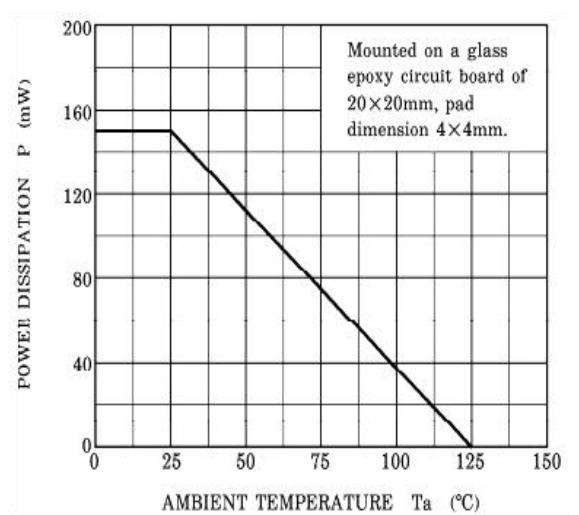
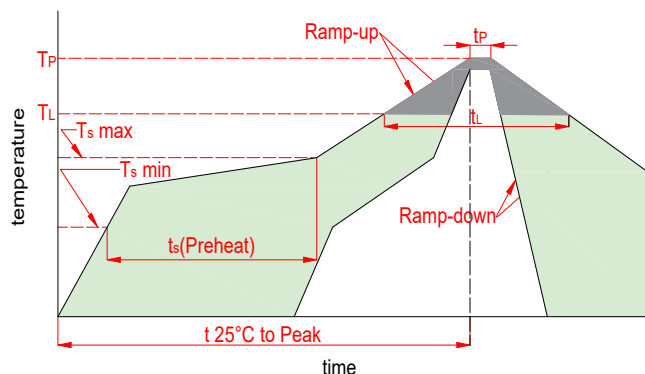


Fig.4 P-Ta



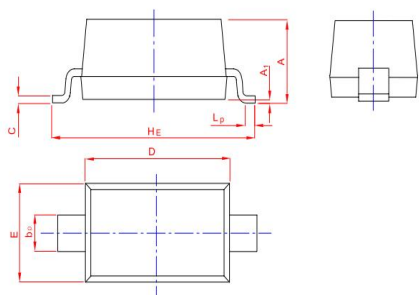


6. Soldering Parameters



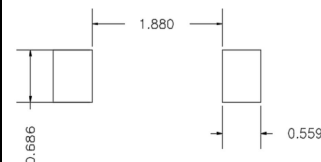
Reflow Condition		Lead-free
Pre Heat	Temp. min(T_s (min))	150°C
	Temp. max(T_s (min))	200°C
	Time(min to max)(t_s)	60~120s
Aver. ramp up rate(Liquidus Temp.)(T_L)to peak		3°C/s max
T_s (max) to T_L -Ramp-up Rate		3°C/s max
Reflow	Temp.(T_L)(Liquidus)	217°C
	Temp.(t_L)(Liquidus)	60~150s
Peak Temp.(T_P)		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

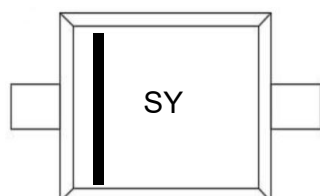


Dimensions	Inches		Millimeters	
	Min	Max	Min	Max
A	0.031	0.047	0.800	1.200
bp	0.010	0.016	0.250	0.400
C	0.003	0.006	0.080	0.150
D	0.063	0.071	1.600	1.800
E	0.045	0.055	1.150	1.400
HE	0.091	0.110	2.300	2.800
A1	0.000	0.004	0.010	0.100
Lp	0.008	0.020	0.200	0.500

Mounting PAD Layout



8. Part Marking System



9. Package Information

Package	Type	Tape Width (mm)	Quantity(pcs)
SOD-323	1SS373	8	3000



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