

Features

- Multilayer Metal -Silicon Potential Structure
- High Current Capability, High Efficiency
- High Junction Temperature Capability
- Low Leakage Current
- RoHs Product



SOD-323

Applications

- Surface mount schottky barrier rectifier
- Buck and Boost dc-dc Converters
- Low Voltage High Frequency Switching Power Supply
- Low Voltage High Frequency Invers Circuit
- Low Voltage Continued Circuit and Protection Circuit



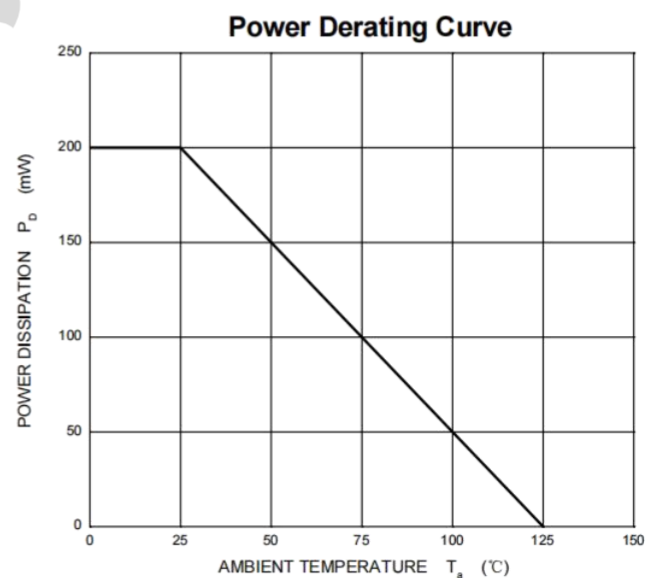
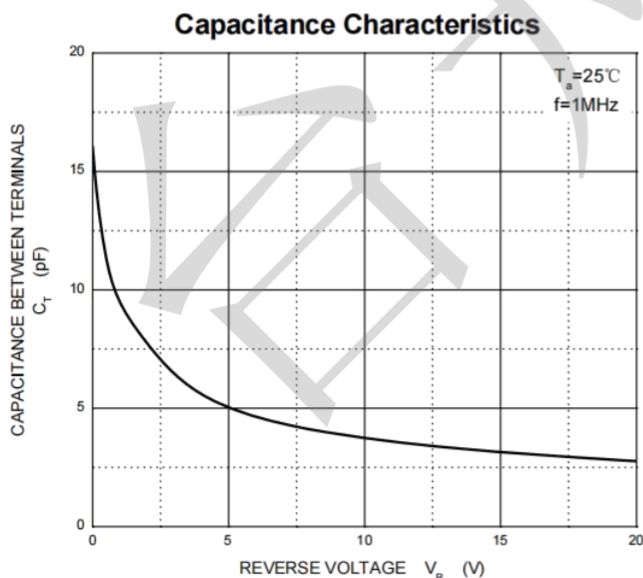
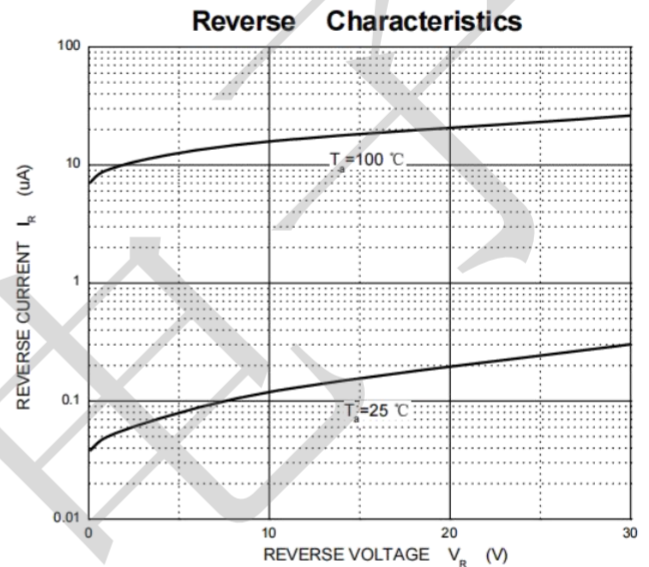
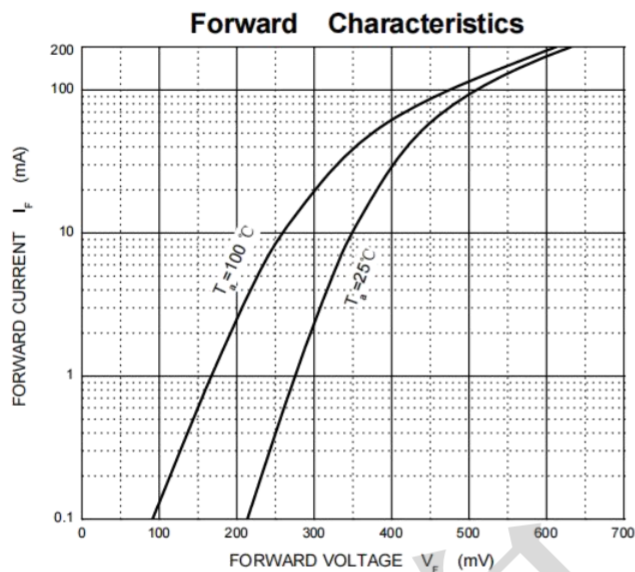
Absolute Maximum Ratings

Parameter	Symbol	Value	Unit
Reverse Voltage	V_{RRM}	30	V
Forward Continuous Current	I_F	200	mA
Repetitive Peak Forward Current	I_{FMR}	500	mA
Forward Surge Current@t=8.3ms	I_{FSM}	4.0	A
Power Dissipation	PD	200	mW
Typical Thermal Resistance per leg @TA = 25°C	$R_{\theta JA}$	500	°C/W
Operating Junction Temperature Range	TJ	-40 to +125	°C
Storage Temperature Range	TSTG	-55 to +125	°C

Electrical Characteristics (TA=25°C unless otherwise specified)

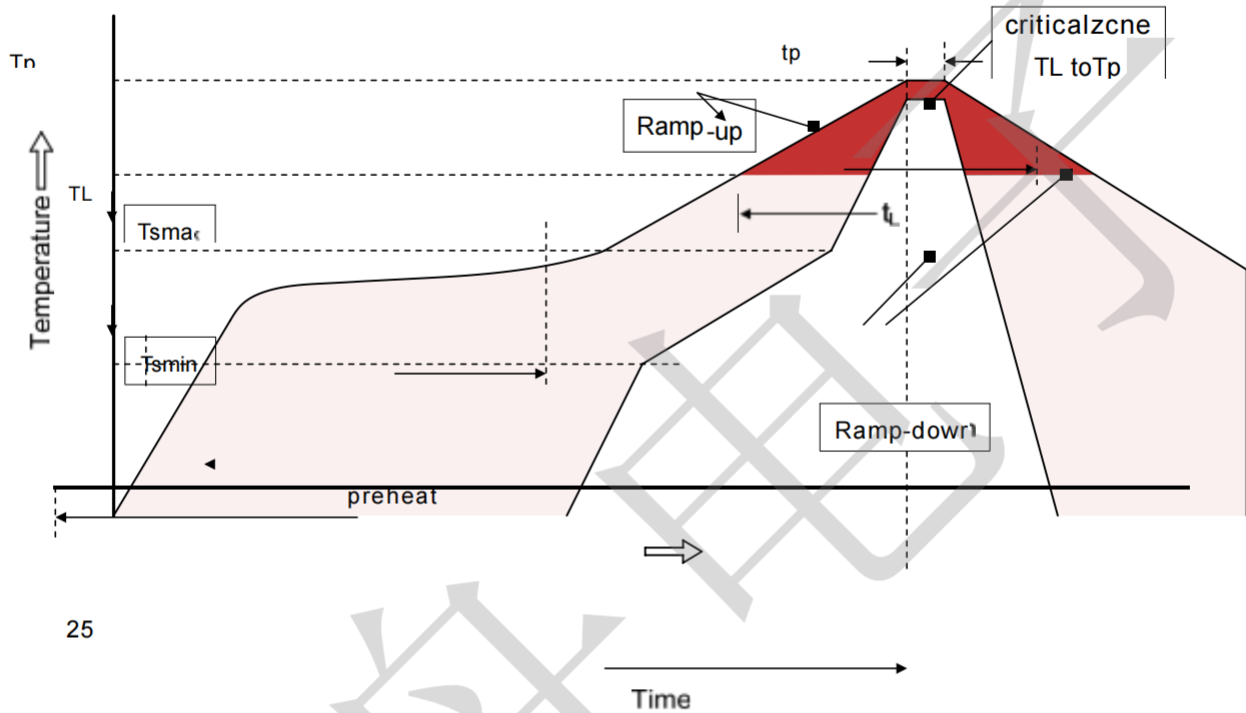
Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse voltage	$V_{(BR)R}$	$I_R=10\mu A$	30	--	--	V
Reverse current	I_R	$V_R=25V$	--	--	0.5	μA
Forward voltage	V_F	$I_F=2mA$	--	--	0.33	V
		$I_F=15mA$	--	--	0.45	V
Total Capacitance	C_{tot}	$V_R = 1 V, f = 1 MHz$	--	--	10	pF
Reverse recovery time	t_{rr}	$I_F=I_R=10mA$ $I_{rr}=0.1I_R, R_L=100\Omega$	--	--	5	nS

Typical Electrical Characteristic Curves



Recommended Soldering Conditions

Reflow Soldering

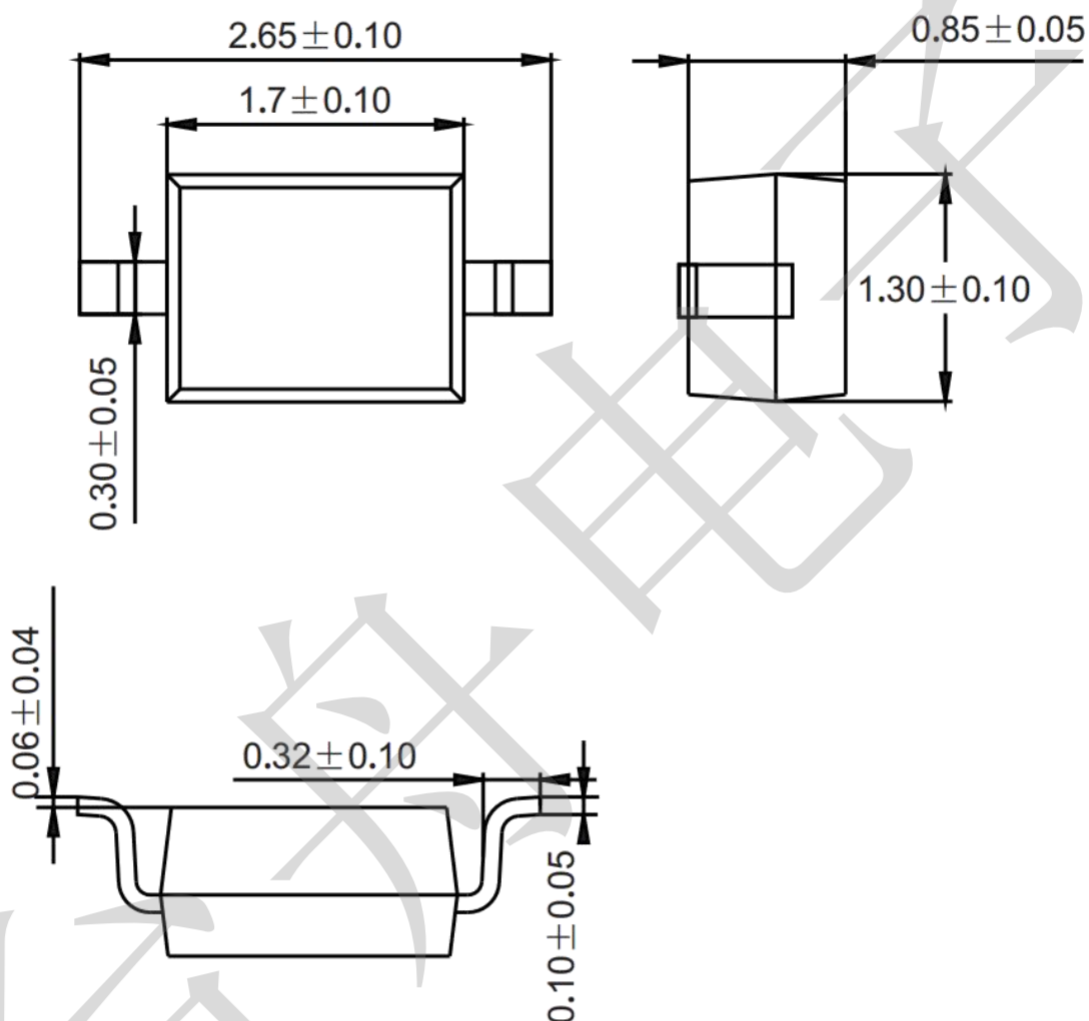


Recommended Conditions

Profile Feature	Pb-Free Assembly
Average ramp-up rate (T_L to T_P)	3°C/second max.
Preheat -Temperature Min (T_{Smin}) -Temperature Max (T_{Smax}) -Time (min to max) (t_s)	150°C 200°C 60-180 seconds
T_{Smax} to T_L -Ramp-up Rate	3°C/second max.
Time maintained above: -Temperature (T_L) -Time (t_L)	217°C 60-150 seconds
Peak Temperature (T_P)	260°C
Time within 5°C of actual Peak Temperature (t_P)	20-40 seconds
Ramp-down Rate	6°C/second max.
Time 25°C to Peak Temperature	8 minutes max.

Package Outline Dimensions (unit: mm)

SOD-323



Mounting Pad Layout (unit: mm)

