

Features

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

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



SOD-323



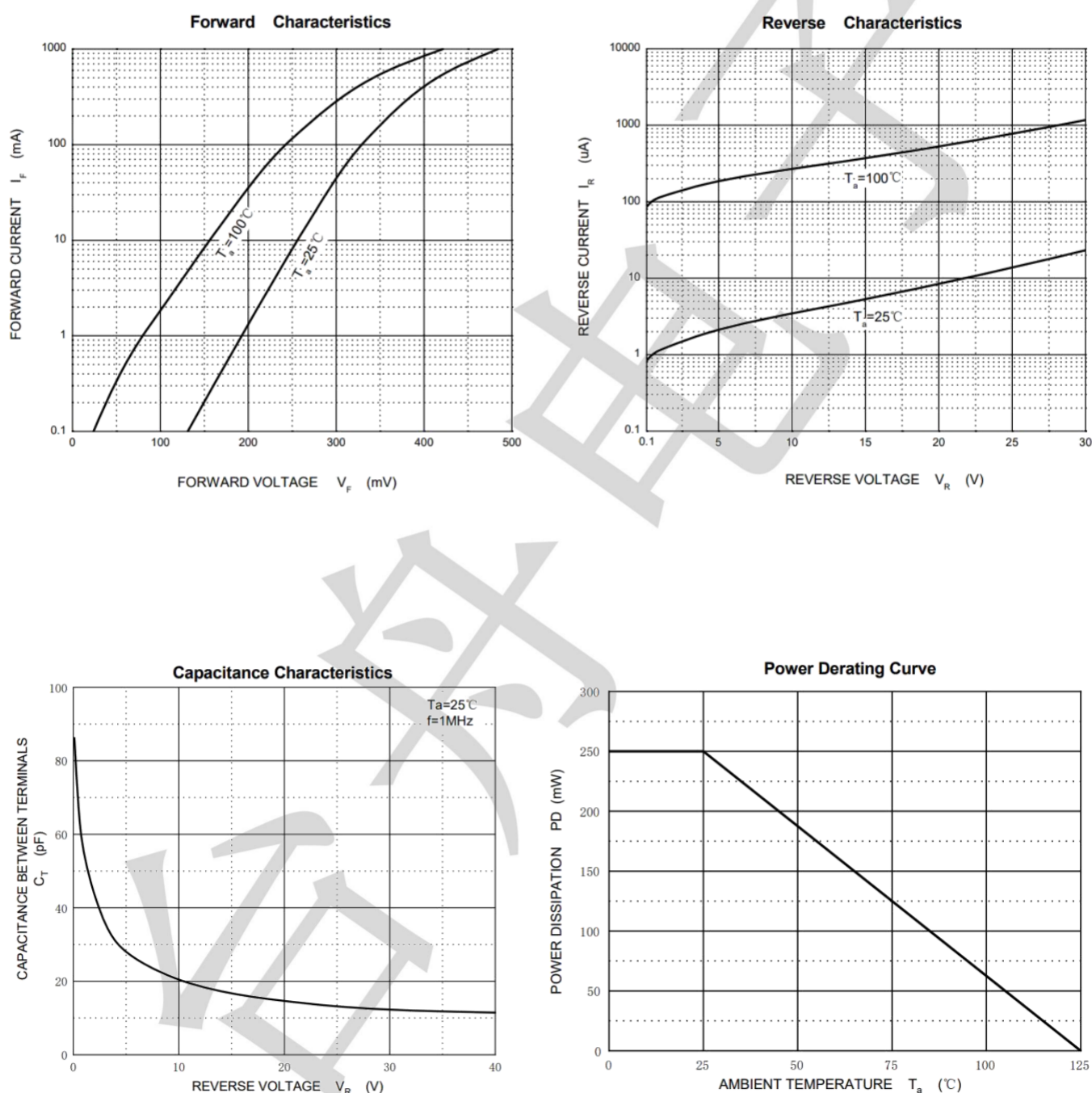
Absolute Maximum Ratings

PARAMETER	SYMBOL	VALUE	UNIT
Maximum repetitive peak reverse voltage	VRRM	30	V
Maximum DC blocking voltage	VDC	30	V
Maximum RMS voltage	VRMS	21	V
Maximum average forward rectified current	IF(AV)	1.0	A
Non-repetitive Peak Forward Surge Current @t=8.3ms Half-sine wave	IFSM	10	A
Power Dissipation	PD	250	mW
Junction Temperature	Tj	-40 ~+125	°C
Storage temperature range	TSTG	-55 ~+150	°C
Typical thermal resistance	RθJA	400	°C /W

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

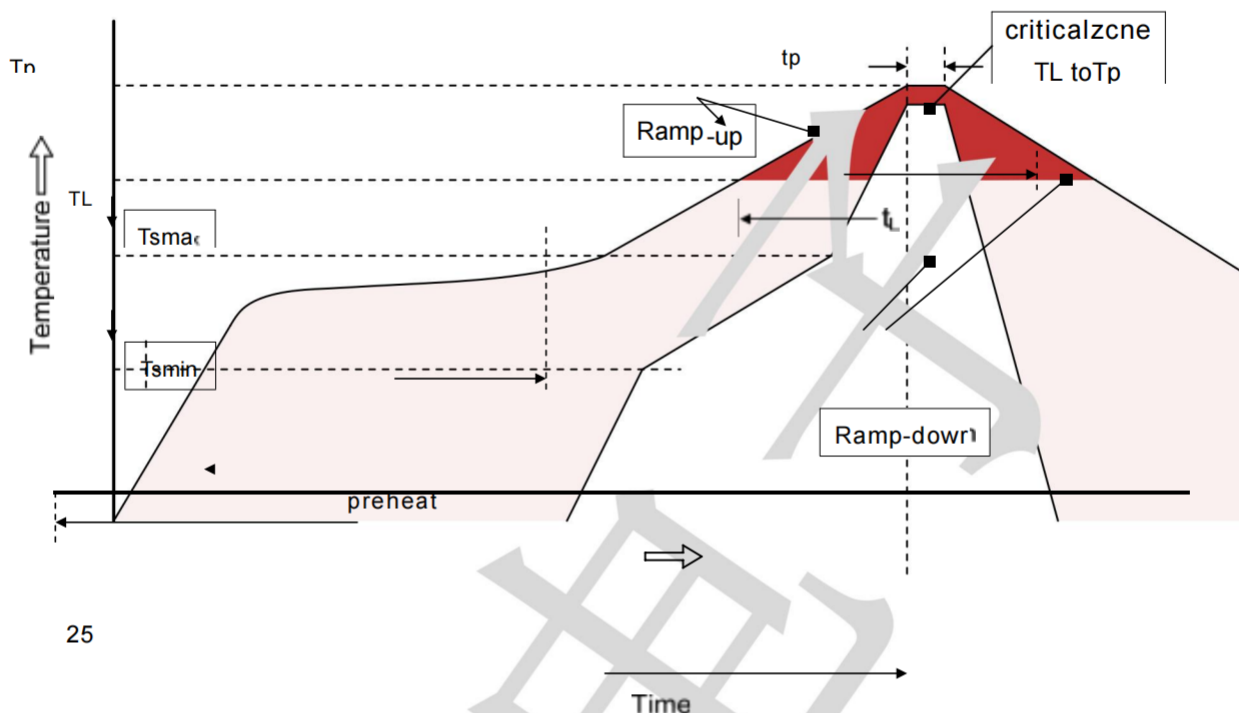
Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse current	IR	VR=30V	--	--	30	uA
		VR=10V	--	--	20	uA
Forward voltage	VF	IF=100mA	--	--	0.35	V
		IF=1000mA	--	--	0.50	V
Total Capacitance	CT	VR = 1V, f = 1 MHz	--	20	--	pF
Reverse recovery time	Trr	IF=IR=200mA ,Irr=0.1×IR RL =100Ω	--	10	--	nS

Typical Electrical Characteristic Curves



Recommended Soldering Conditions

Reflow Soldering

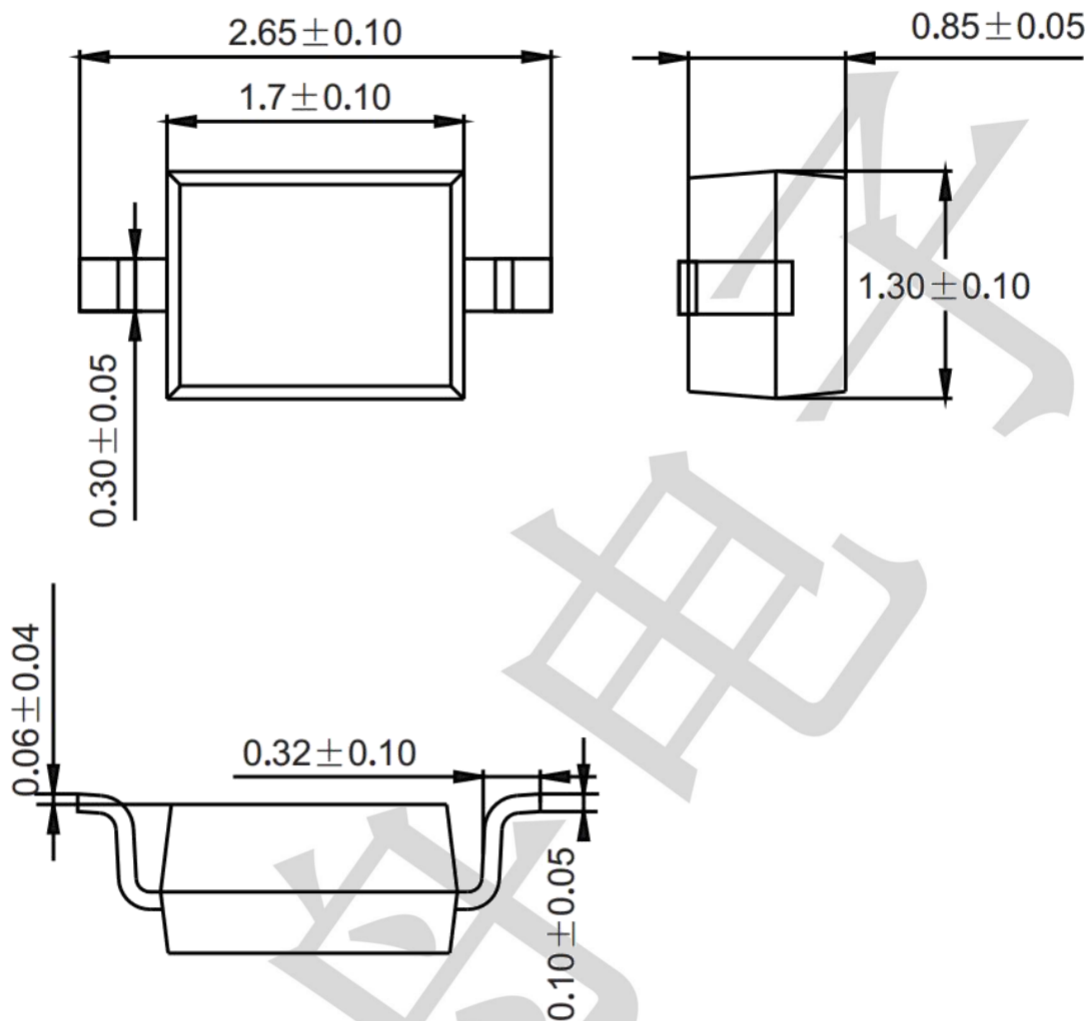


Recommended Conditions

Profile Feature	Pb-Free Assembly
Average ramp-up rate (T_L to T_P)	3°C/second max.
Preheat	
-Temperature Min (T_{Smin})	150°C
-Temperature Max (T_{Smax})	200°C
-Time (min to max) (t_s)	60-180 seconds
T_{Smax} to T_L	
-Ramp-up Rate	3°C/second max.
Time maintained above:	
-Temperature (T_L)	217°C
-Time (t_L)	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)

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Mounting Pad Layout (unit: mm)

