

FEATURES

- | Fast Switching Device

- | Power Dissipation of 200mW

- | High Stability and High Reliability

- | Low reverse leakage



SOD-323

MECHANICAL DATA

- | SOD-323 Small Outline Plastic Package

- | Polarity: Color band denotes cathode end

- | Mounting Position: Any

APPROVALS

RoHS	Compliance with 2011/65/EU
HF	Compliance with IEC61249-2-21:2003

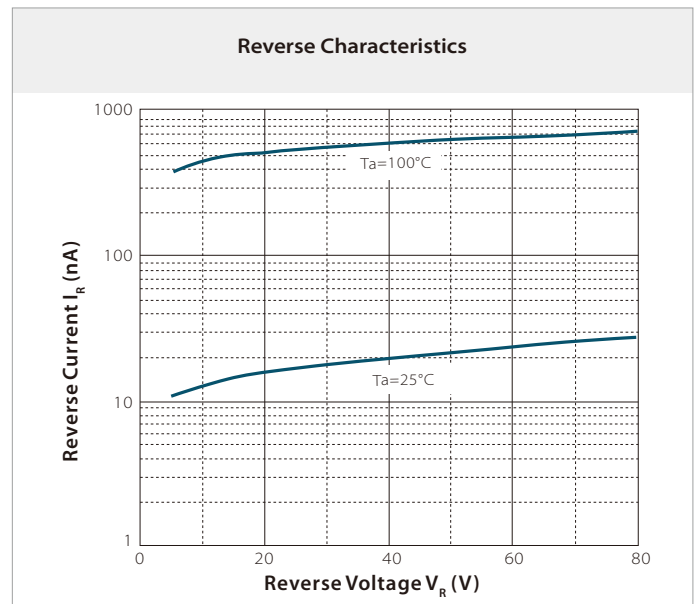
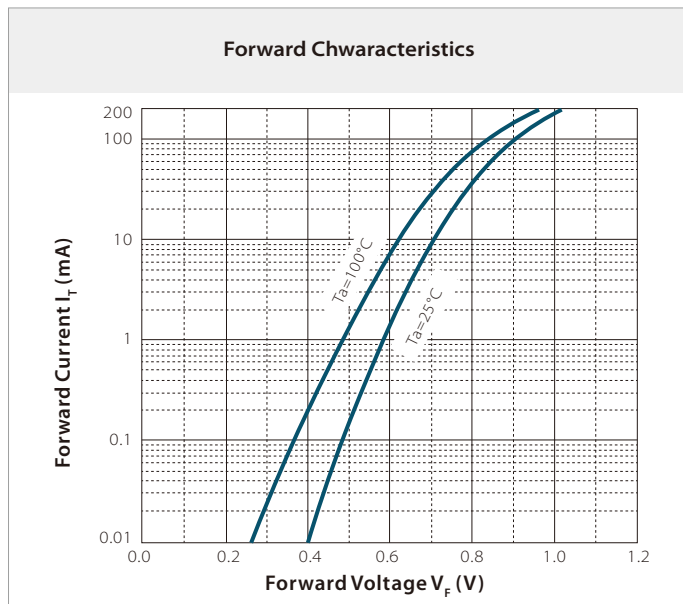
MAXIMUM RATINGS (T_A=25°C)

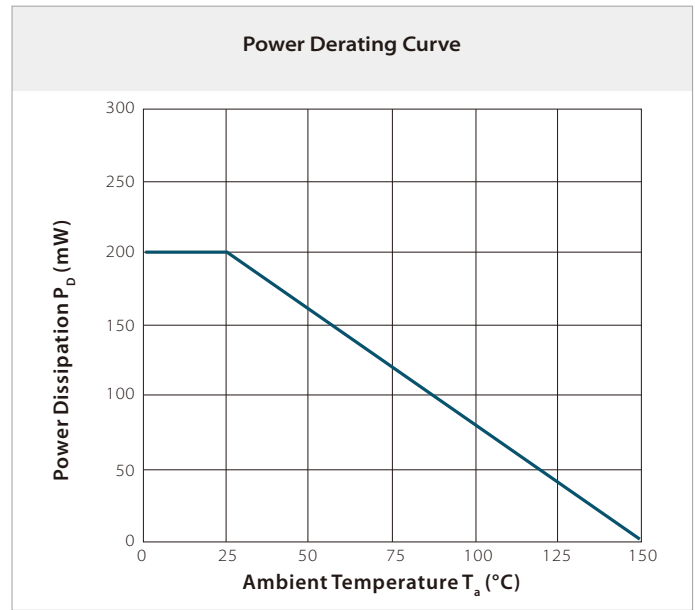
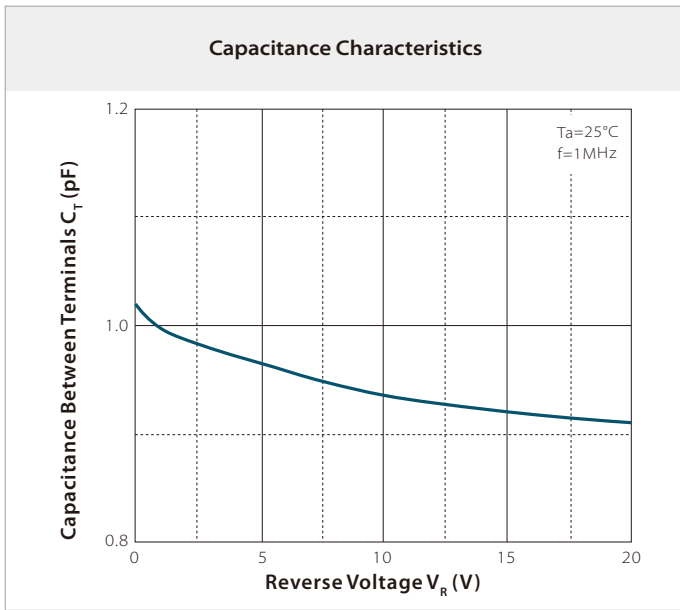
Parameter	Symbol	Value	Unit
Peak Reverse Voltage	V _{RM}	100	V
Power Dissipation	P _d	200	mW
Thermal Resistance from Junction to Ambient	R _{θJA}	312	°C/W
Working Inverse Voltage	W _{IV}	75	V
Average Rectified Current	I _O	150	mA
Non-repetitive Peak Forward Current	I _{FM}	300	mA
Peak Forward Surge Current @tp=1us; T _A =25°C	I _{FSM}	1.0	A
Operating junction temperature	T _J	150	°C
Storage temperature range	T _{STG}	-55 to 150	°C

ELECTRICAL CHARACTERISTICS(T_A=25°C)

Parameter	Test Condition	Symbol	Min.	Max.	Unit
Breakdown Voltage	I _R = 100uA	B _V	100		V
	I _R = 5uA		75		V
Reverse Leakage Current	V _R = 20V	I _R		25	nA
	V _R = 75V			5	μA
Forward Voltage	I _F = 10mA	V _F		1	V
	I _F = 100mA			1.25	V
Reverse Recovery Time	I _F = I _R = 30mA	T _{RR}		4	nS
	RL=100Ω				
	I _{RR} =0.1 X I _R				
Capacitance	V _R =0V, f=1MHz	C _T		4	pF

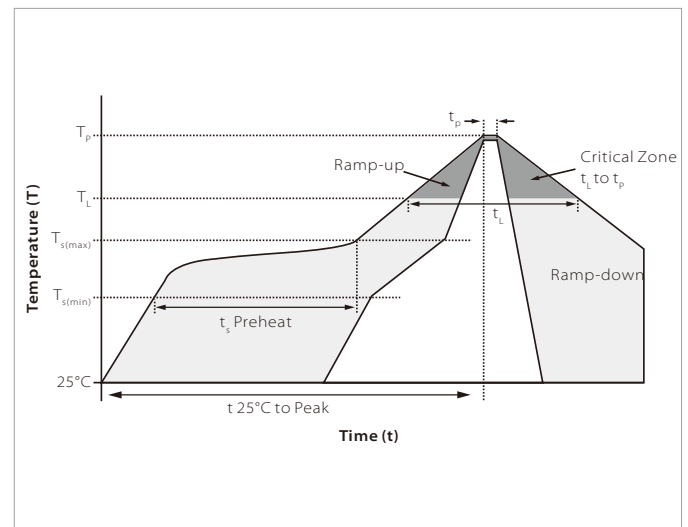
CHARACTERISTIC CURVES



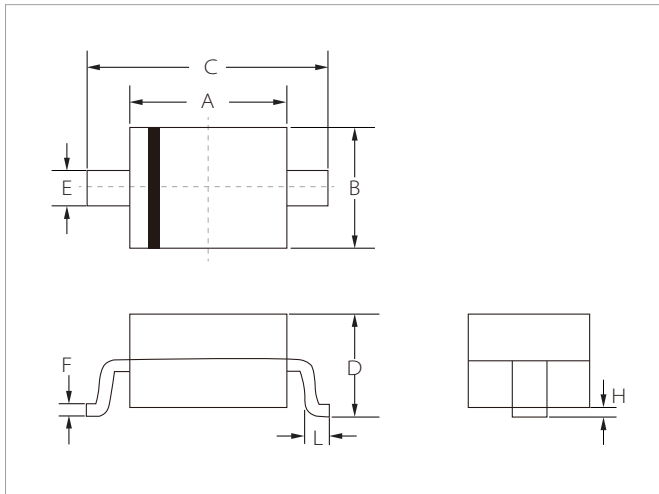


SOLDERING PARAMETERS

Reflow Condition		Lead-free assembly
Pre Heat	Temperature Max ($T_{s(\text{min})}$)	150 $^\circ\text{C}$
	Temperature Max ($T_{s(\text{max})}$)	200 $^\circ\text{C}$
	Time (min to max) (t_s)	60 – 180 secs
Average ramp up rate (Liquidus Temp (T_L) to peak)		3 $^\circ\text{C}/\text{second}$ max
$T_{s(\text{max})}$ to T_L - Ramp-up Rate		3 $^\circ\text{C}/\text{second}$ max
Reflow	Temperature (T_L) (Liquidus)	217 $^\circ\text{C}$
	Time (min to max) (t_r)	60 – 150 seconds
Peak Temperature (T_p)		260 $^\circ\text{C}$
Time within 5 $^\circ\text{C}$ of actual peak Temperature (t_p)		20 – 40 seconds
Ramp-down Rate		6 $^\circ\text{C}/\text{second}$ max
Time 25 $^\circ\text{C}$ to peak Temperature (T_p)		8 minutes max.
Do not exceed		260 $^\circ\text{C}$

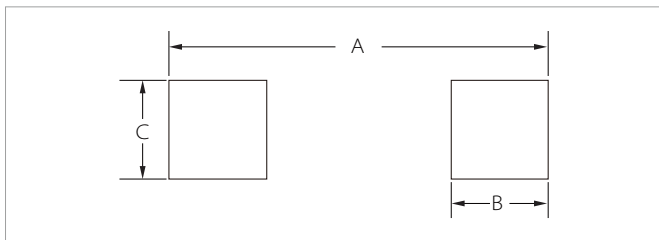


SOD-323 PACKAGE INFORMATION



Ref.	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	1.60	1.90	0.063	0.075
B	1.15	1.45	0.045	0.057
C	2.39	2.75	0.094	0.108
D	0.80	1.10	0.031	0.043
E	0.25	0.40	0.010	0.016
F	0.10	0.20	0.004	0.008
H	-	0.10	-	0.004
L	0.20	0.40	0.008	0.016

RECOMMENDED PAD LAYOUT DIMENSIONS



Ref.	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	2.87	3.12	0.113	0.123
B	0.66	0.91	0.026	0.036
C	0.66	0.91	0.026	0.036

ORDERING INFORMATION

Part Number	Marking	Component Package	QTY/Reel	Reel Size
1N914BWS	WQ	SOD-323	3000PCS	7"

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