

# 1N914WS-BL

## Silicon Epitaxial Planar Switching Diode

### Features

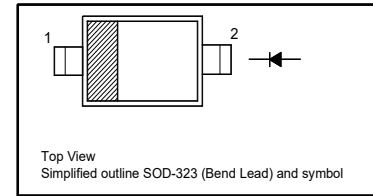
- High reliability
- Small plastic package suitable for surface mounted design

### Applications

- High speed switching

#### PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



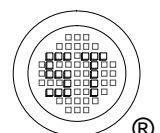
### Absolute Maximum Ratings ( $T_a = 25^\circ\text{C}$ )

Parameter	Symbol	Value	Unit
Repetitive Reverse Voltage	$V_{RRM}$	100	V
Average Rectified Forward Current	$I_{F(AV)}$	200	mA
Non-repetitive Peak Forward Surge Current	$I_{FSM}$	1 2	A
		at $t = 1$ s at $t = 1$ $\mu\text{s}$	
Power Dissipation	$P_D$	200	mW
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	- 55 to + 150	$^\circ\text{C}$

### Thermal Characteristics

Parameter	Symbol	Max.	Unit
Thermal Resistance from Junction to Ambient <sup>1)</sup>	$R_{\theta JA}$	625	$^\circ\text{C/W}$

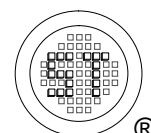
<sup>1)</sup> Device mounted on FR-4 substrate PC board, 2oz copper, with minimum recommended pad layout.



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## Characteristics at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Min.	Max.	Unit
Forward Voltage at $I_F = 10\text{ mA}$	$V_F$	-	1	V
Reverse Breakdown Voltage at $I_R = 5\text{ }\mu\text{A}$ at $I_R = 100\text{ }\mu\text{A}$	$V_{(BR)R}$	75 100	- -	V V
Reverse Current at $V_R = 20\text{ V}$ at $V_R = 75\text{ V}$ at $V_R = 20\text{ V}$ , $T_j = 150\text{ }^\circ\text{C}$	$I_R$	- - -	25 5 50	nA $\mu\text{A}$ $\mu\text{A}$
Total Capacitance at $V_R = 0\text{ V}$ , $f = 1\text{ MHz}$	$C_{\text{tot}}$	-	4	pF
Reverse Recovery Time at $I_F = 10\text{ mA}$ , $I_{rr} = 0.1 \times I_R$ , $V_R = 6\text{ V}$ , $R_L = 100\text{ }\Omega$	$t_{rr}$	-	4	ns



## Electrical Characteristics Curves

Fig 1. Power Derating Curve

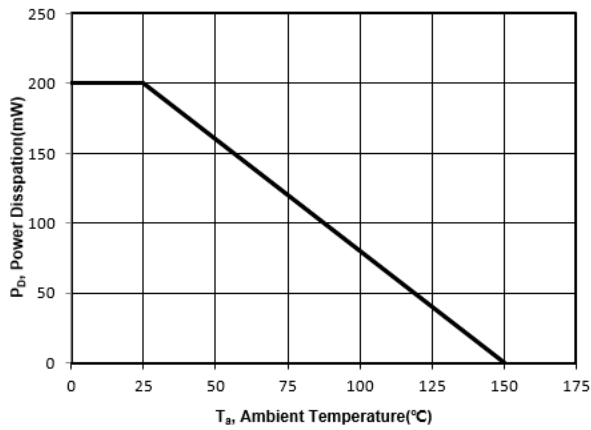


Fig 2. Capacitance characteristics

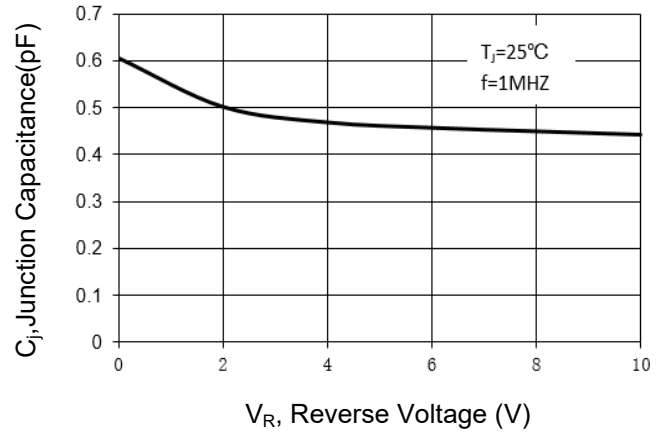


Fig 3. Reverse Characteristics

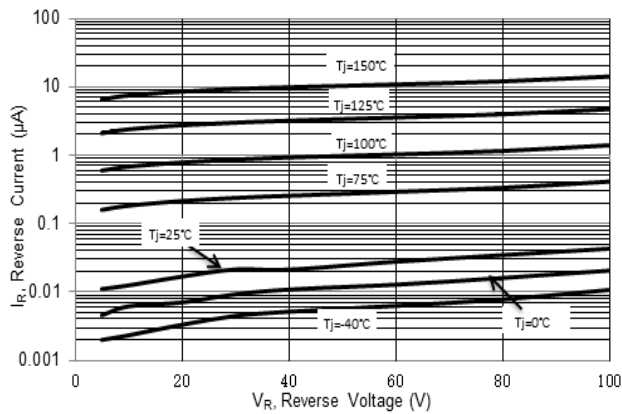
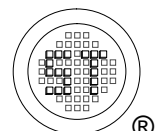
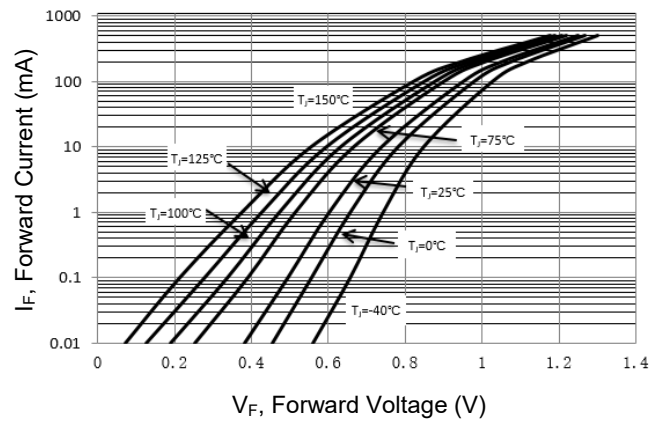


Fig 4. Forward Characteristics

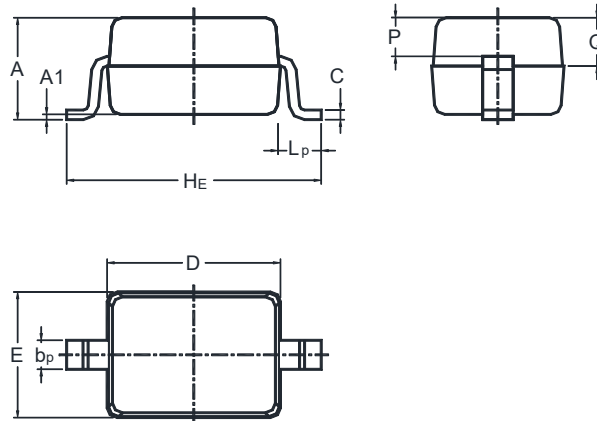


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## PACKAGE OUTLINE

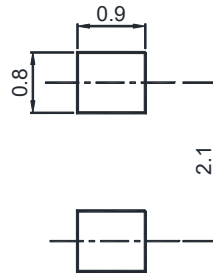
Plastic surface mounted package; 2 leads

SOD-323BL



UNIT	A	A <sub>1</sub>	b <sub>p</sub>	C	D	E	H <sub>E</sub>	L <sub>p</sub>	Q	P
mm	1.1 0.8	0.1 0	0.4 0.25	0.18 0.09	1.8 1.6	1.35 1.15	2.8 2.3	0.5 0.1	0.5 0.3	0.4 0.3

## Recommended Soldering Footprint



## Packing information

Package	Tape Width (mm)	Pitch		Reel Size		Per Reel Packing Quantity
		mm	inch	mm	inch	
SOD-323BL	8	4 ± 0.1	0.157 ± 0.004	178	7	3,000

## Marking information

" W2 " = Part No.

" III " = Cathode line

Font type: Arial



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