

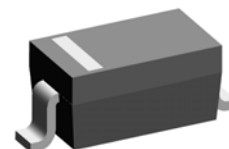
## Small Signal Zener Diode

### General Description

These diodes small signal Zener diodes, fabricated in planar technology. Miniature surface mount package is excellent for hand-held and portable applications where is space is limited.

### Features and Benefits

- Silicon epitaxial planar diode
- Low Zener impedance and low leakage current
- Standard Zener voltage tolerance is 4.3%.
- Full lead (Pb)-free device and RoHS compliant device
- Available in "Green" device



SOD-323



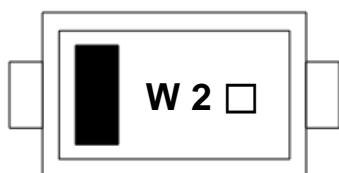
### Applications

- Voltage regulator

### Ordering Information

Part Number	Marking Code	Package	Packaging
SDZ9V1D	W2 □	SOD-323	Tape & Reel

### Marking Information


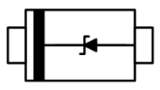


W 2 = Specific Device Code

□ = Year & Week Code Marking

■ = Color band denote cathode

### Pinning Information

Pin	Description	Simplified Outline	Graphic Symbol
1	Cathode		
2	Anode		

**Absolute Maximum Ratings** ( $T_{amb}=25^{\circ}\text{C}$ , Unless otherwise specified)

Characteristic	Symbol	Ratings	Unit
Power dissipation <sup>1)</sup>	$P_D$	200	mW
Operating junction temperature	$T_J$	150	$^{\circ}\text{C}$
Storage temperature range	$T_{stg}$	$-55^{\circ}\text{C}$ to $+150^{\circ}\text{C}$	$^{\circ}\text{C}$

<sup>1)</sup> Device mounted on FR-4 board with recommended pad layout.

**Thermal Characteristics** ( $T_{amb}=25^{\circ}\text{C}$ , Unless otherwise specified)

Characteristic	Symbol	Ratings	Unit
Thermal resistance, junction to ambient <sup>1)</sup>	$R_{th(j-a)}$	625	$^{\circ}\text{C/W}$

<sup>1)</sup> Device mounted on FR-4 board with recommended pad layout.

**Electrical Characteristics** ( $T_{amb}=25^{\circ}\text{C}$ , Unless otherwise specified)

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Zener voltage	$V_Z$	$I_Z=5\text{mA}$	8.70	-	9.50	V
Dynamic impedance	$Z_{ZT}$	$I_Z=5\text{mA}$	-	-	10	$\Omega$
KNEE dynamic impedance	$Z_{ZK}$	$I_Z=0.25\text{mA}$	-	-	600	$\Omega$
Reverse leakage current	$I_R$	$V_R=7\text{V}$	-	-	0.1	$\mu\text{A}$

## Rating and Characteristic Curves

Fig. 1) Typical Zener Characteristics

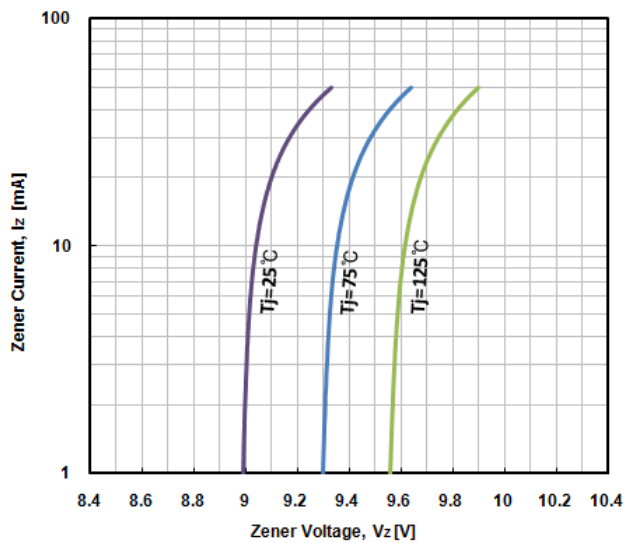


Fig. 2) Typical Forward Characteristics

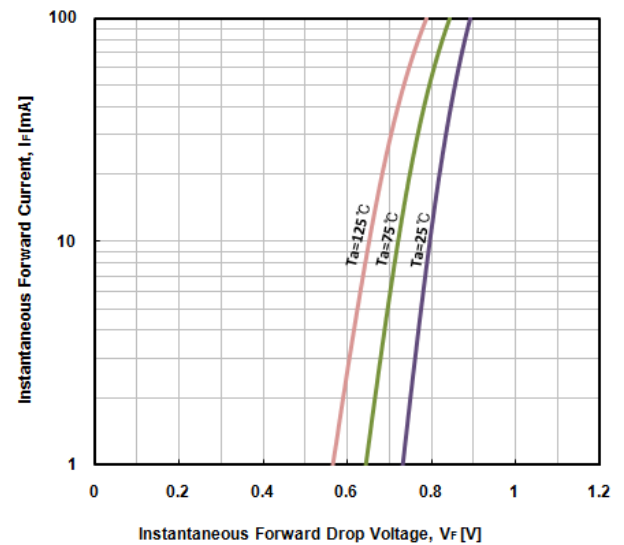


Fig. 3) Typical Total Capacitance Characteristics

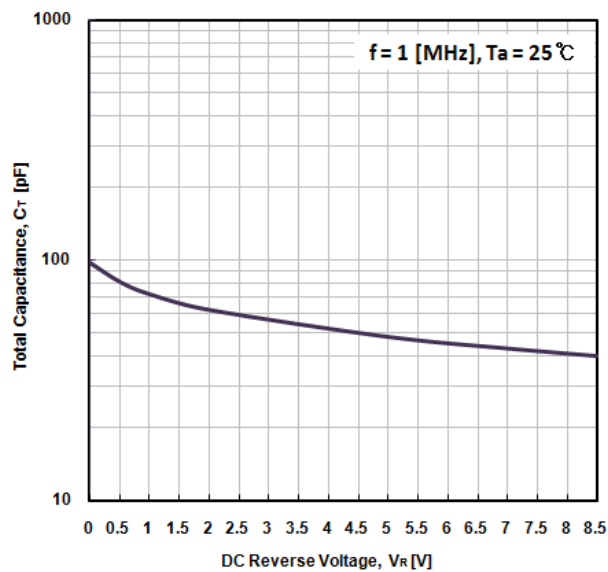
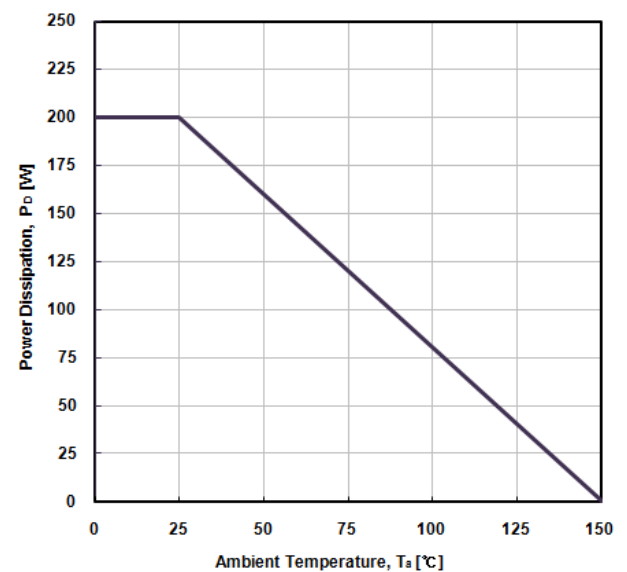
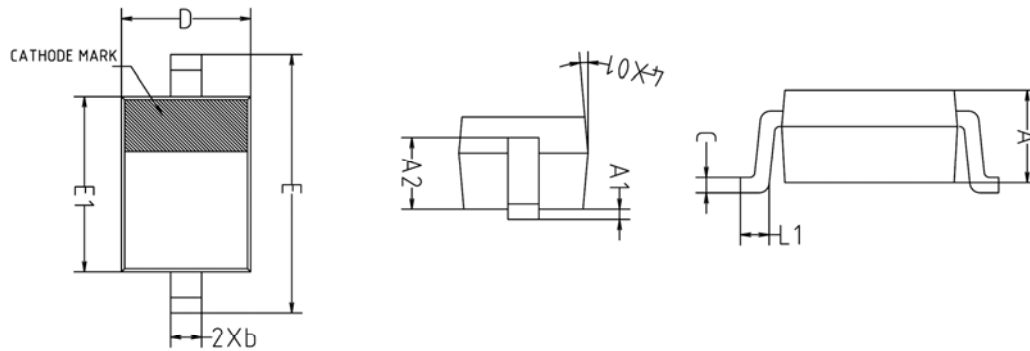


Fig. 4) Power Dissipation vs. Ambient Temperature

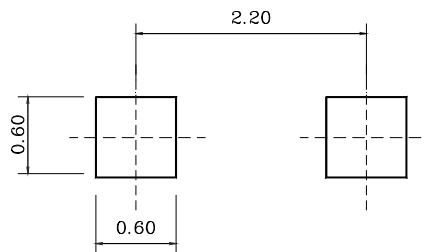


## Package Outline Dimensions



SYMBOL	MILLIMETERS			NOTE
	MINIMUM	NOMINAL	MAXIMUM	
A	0.850	-	0.950	
A1	0.000	-	0.100	
A2	0.650	0.700	0.750	
b	0.250	0.300	0.350	
c	0.110	0.150	0.190	
D	1.200	1.250	1.300	
E	2.400	2.500	2.600	
E1	1.650	1.700	1.750	
L1	0.200	-	0.300	
Ø2	5° REF			

## ※ Recommend PCB solder land (Unit : mm)



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