

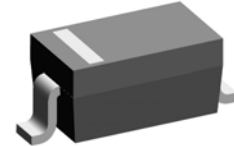
## Small Signal Zener Diode

### 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**



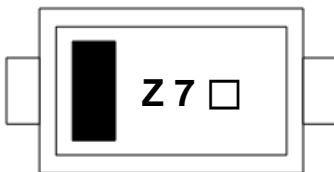
### Applications

- Voltage regulator

### Ordering Information

Part Number	Marking Code	Package	Packaging
<b>SDZ8V2D</b>	<b>Z7 □</b>	<b>SOD-323</b>	<b>Tape &amp; Reel</b>

### Marking Information





**Z 7 = Specific Device Code**

□ = Year & Week Code Marking

■ = Color band denote cathode

### Pinning Information

Pin	Description	Simplified Outline	Graphic Symbol
<b>1</b>	<b>Cathode</b>		
<b>2</b>	<b>Anode</b>		

# SDZ8V2D

## Absolute Maximum Ratings (T<sub>amb</sub>=25°C, Unless otherwise specified)

Characteristic	Symbol	Ratings	Unit
Power dissipation <sup>1)</sup>	P <sub>D</sub>	200	mW
Operating junction temperature	T <sub>J</sub>	150	°C
Storage temperature range	T <sub>stg</sub>	-55 to +150	

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

## Thermal Characteristics (T<sub>amb</sub>=25°C, Unless otherwise specified)

Characteristic	Symbol	Ratings	Unit
Thermal resistance, junction to ambient <sup>1)</sup>	R <sub>th(j-a)</sub>	625	°C/W

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

## Electrical Characteristics (T<sub>amb</sub>=25°C, Unless otherwise specified)

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Zener voltage	V <sub>Z</sub>	I <sub>Z</sub> =5mA	7.84	-	8.56	V
Dynamic impedance	Z <sub>ZT</sub>	I <sub>Z</sub> =5mA	-	-	7	Ω
KNEE dynamic impedance	Z <sub>ZK</sub>	I <sub>Z</sub> =0.25mA	-	-	600	
Reverse leakage current	I <sub>R</sub>	V <sub>R</sub> =6.5V	-	-	0.5	uA

## Rating and Characteristic Curves

Fig. 1) Typical Zener Characteristics

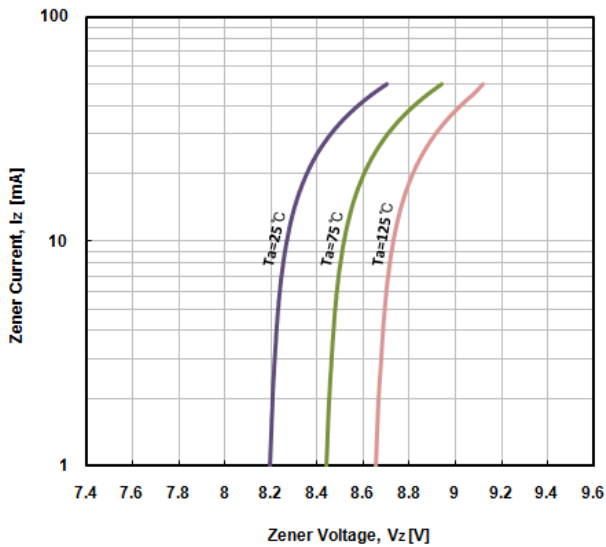


Fig. 2) Typical Forward Characteristics

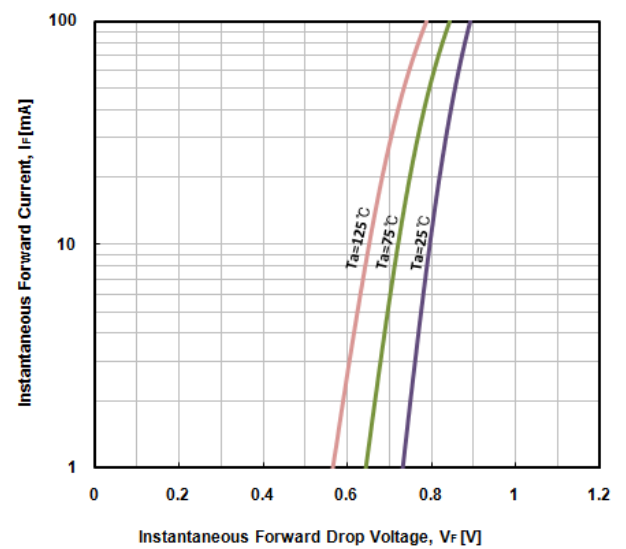


Fig. 3) Typical Total Capacitance Characteristics

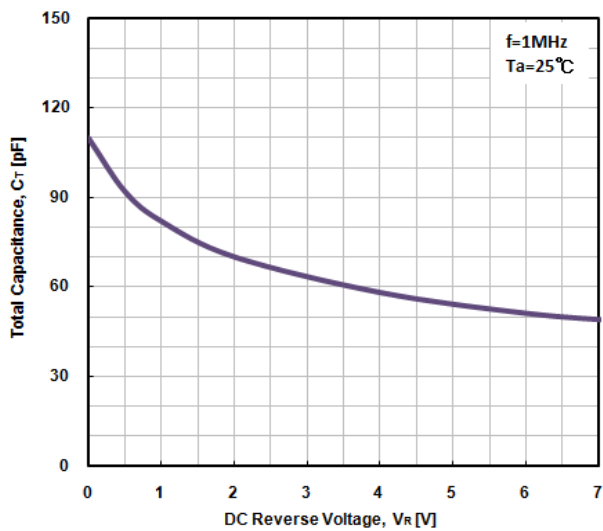
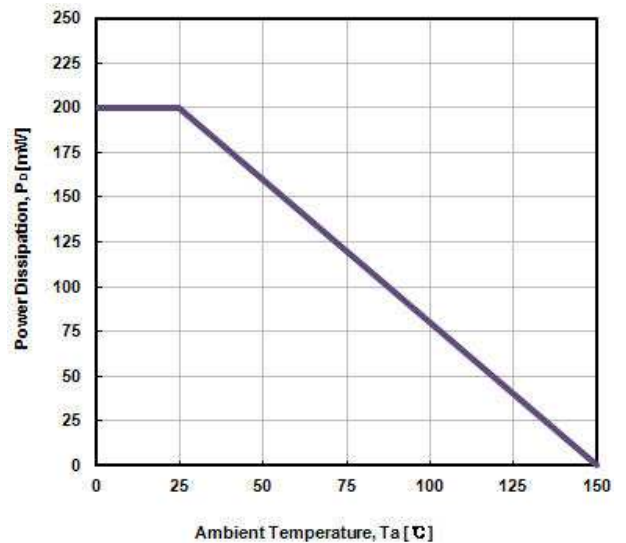
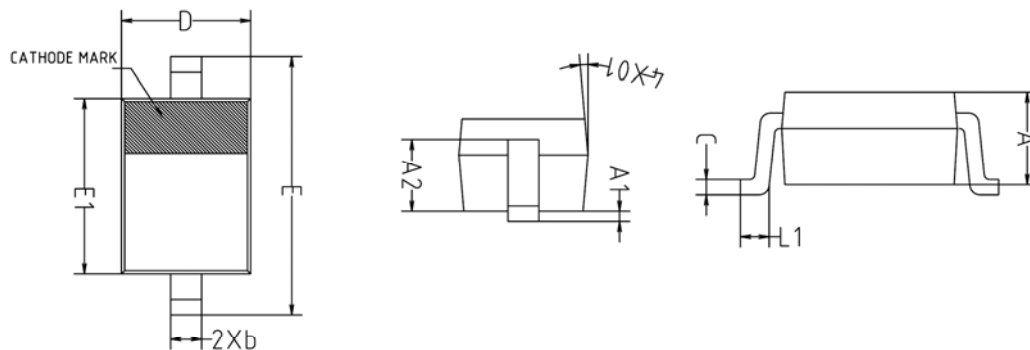


Fig. 4) Power Dissipation vs. Ambient Temperature



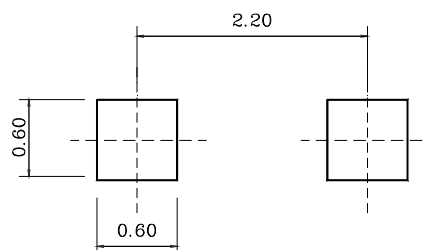
# SDZ8V2D

## Package Outline Dimensions (Unit: mm)



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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