

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.



SOD-323

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



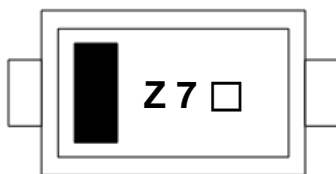
Applications

- Voltage regulator

Ordering Information

Part Number	Marking Code	Package	Packaging
SDZ8V2D	Z7 □	SOD-323	Tape & Reel

Marking Information


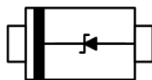


Z 7 = Specific Device Code

□ = Year & Week Code Marking

■ = Color band denote cathode

Pinning Information

Pin	Description	Simplified Outline	Graphic Symbol
1	Cathode		
2	Anode		

SDZ8V2D

Absolute Maximum Ratings (T_{amb}=25°C, Unless otherwise specified)

Characteristic	Symbol	Ratings	Unit
Power dissipation ¹⁾	P _D	200	mW
Operating junction temperature	T _J	150	°C
Storage temperature range	T _{stg}	-55 to +150	

¹⁾ Device mounted on FR-4 board with recommended pad layout.

Thermal Characteristics (T_{amb}=25°C, Unless otherwise specified)

Characteristic	Symbol	Ratings	Unit
Thermal resistance, junction to ambient ¹⁾	R _{th(j-a)}	625	°C/W

¹⁾ Device mounted on FR-4 board with recommended pad layout.

Electrical Characteristics (T_{amb}=25°C, Unless otherwise specified)

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Zener voltage	V _Z	I _Z =5mA	7.84	-	8.56	V
Dynamic impedance	Z _{ZT}	I _Z =5mA	-	-	7	Ω
KNEE dynamic impedance	Z _{ZK}	I _Z =0.25mA	-	-	600	
Reverse leakage current	I _R	V _R =6.5V	-	-	0.5	μA

Rating and Characteristic Curves

Fig. 1) Typical Zener Characteristics

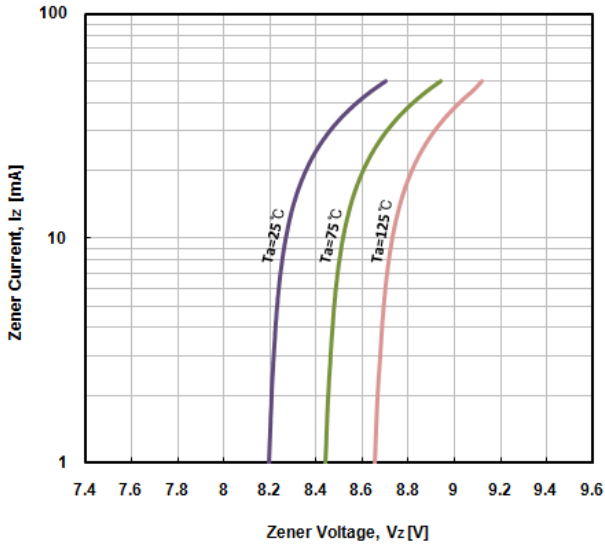


Fig. 2) Typical Forward Characteristics

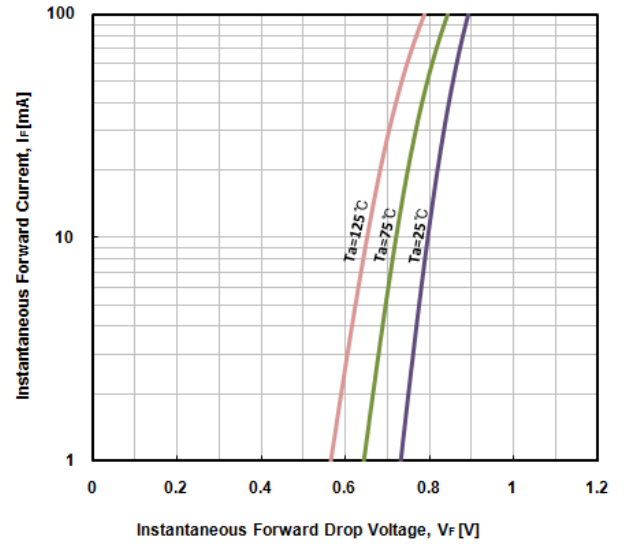


Fig. 3) Typical Total Capacitance Characteristics

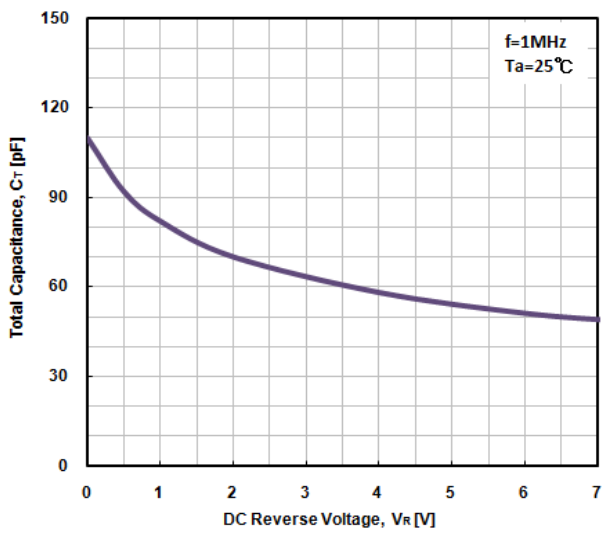
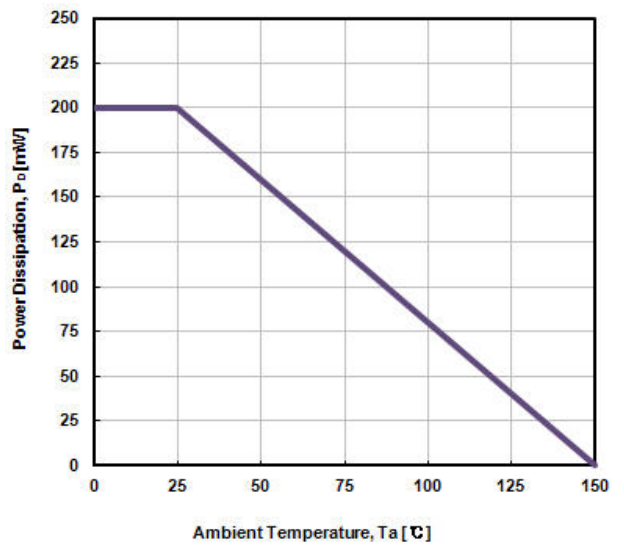
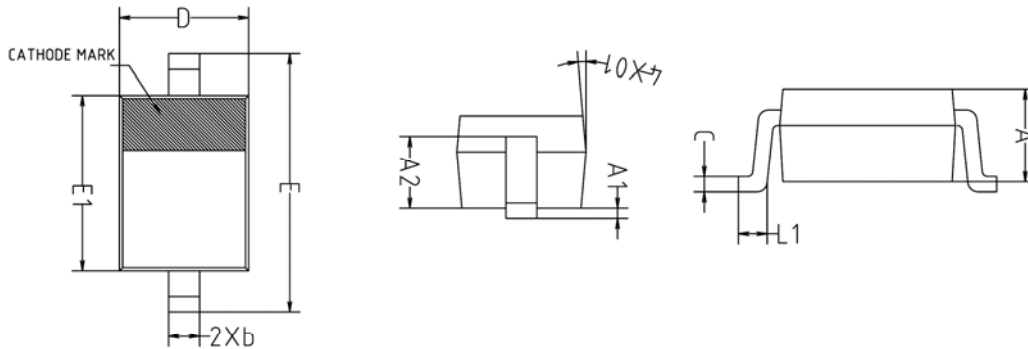


Fig. 4) Power Dissipation vs. Ambient Temperature



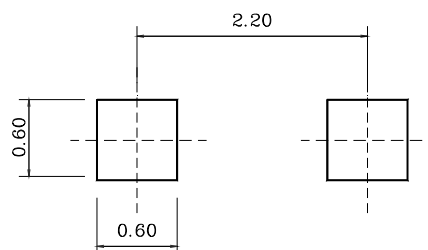
SDZ8V2D

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	
$\varnothing 2$	5° REF			

※ Recommend PCB solder land (Unit : mm)



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