

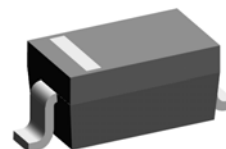
ESD Protection Zener Diode

General Description

SDZ6V2AD in very small SOD-323 SMD plastic package designed to protect one data line from the damage caused by Electro Static Discharge (ESD) and other transients.

Features and Benefits

- Protection one I/O or power line
- Transient protection for data lines to **IEC 61000-4-2 (ESD)**
Air discharge mode: $\pm 15\text{kV}$, Contact discharge mode: $\pm 8\text{kV}$
- Small package for use in portable equipment
- Full lead(Pb)-free device and RoHS compliant
- Available in "Green" device



SOD-323



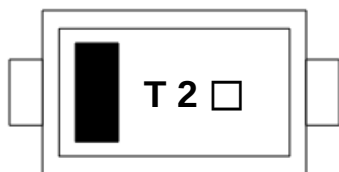
Applications

- ESD protection

Ordering Information

Part Number	Marking Code	Package	Packaging
SDZ6V2AD	T2 □	SOD-323	Tape & Reel

Marking Information

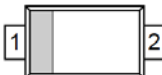
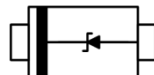


T 2= Specific Device Code

□ = 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 ¹⁾	P_D	200	mW
Operating junction temperature	T_J	150	$^{\circ}\text{C}$
Storage temperature range	T_{stg}	-55°C to $+150^{\circ}\text{C}$	$^{\circ}\text{C}$

¹⁾ 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 ¹⁾	$R_{th(j-a)}$	625	$^{\circ}\text{C/W}$

¹⁾ 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	$I_Z=5\text{mA}$	5.7	-	6.7	V
Reverse current	I_R	$V_R=3\text{V}$	-	-	2	μA
Total capacitance	C_T	$V_R=0\text{V}$, $f=1\text{MHz}$		20		pF

Rating and Characteristic Curves

Fig. 1) Typical Zener Characteristics

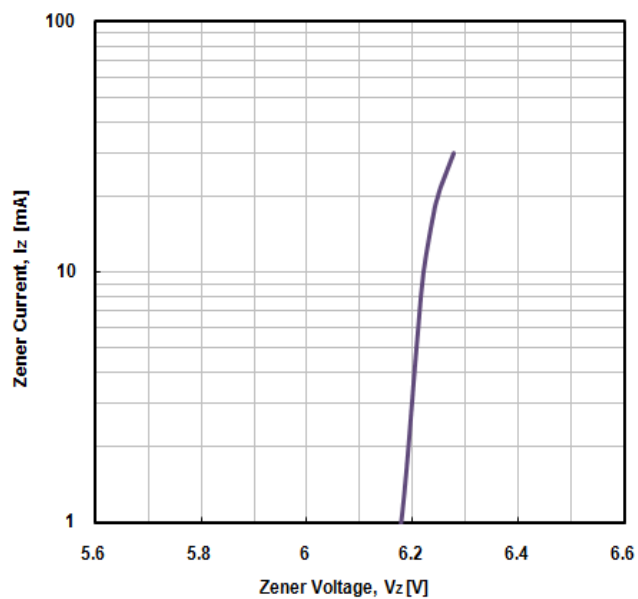


Fig. 2) Power Dissipation vs. Ambient Temperature

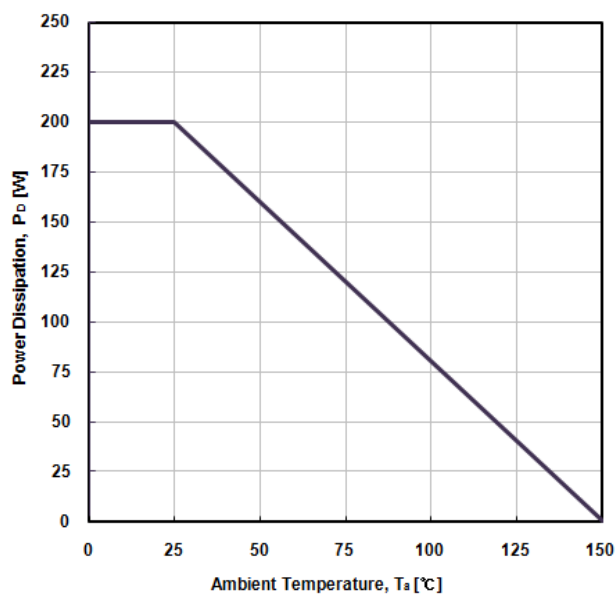
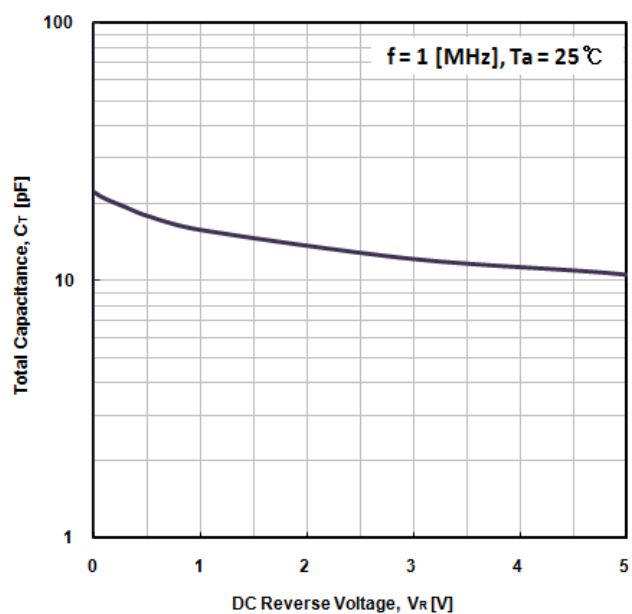
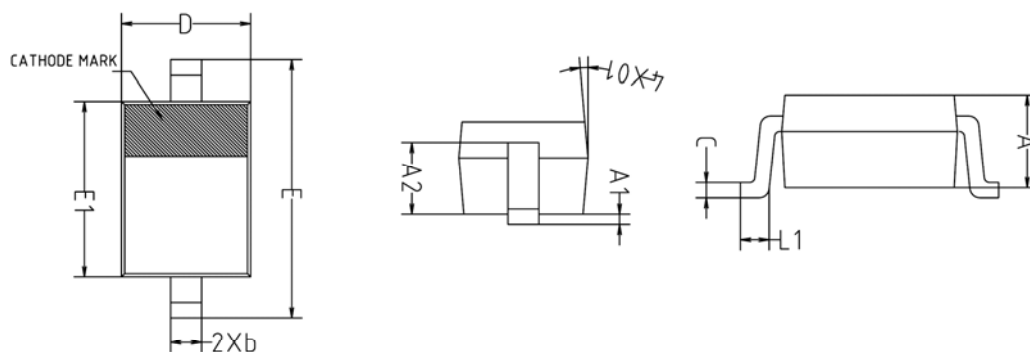


Fig. 3) Typical Capacitance Characteristics

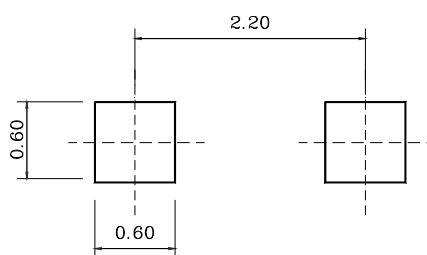


Package Outline Dimensions



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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