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.

SOD-323

Features and Benefits

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

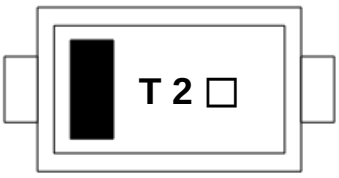
Applications

- ESD protection

Ordering Information

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

Marking Information

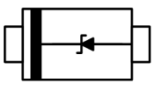


T 2= Specific Device Code

□ = 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℃, 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°C	°C

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

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

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Zener voltage	V_Z	I_Z=5mA	5.7	-	6.7	V
Reverse current	I_R	V_R=3V	-	-	2	μA
Total capacitance	C_T	V_R=0V, f=1MHz		20		pF

Rating and Characteristic Curves

Fig. 1) Typical Zener Characteristics

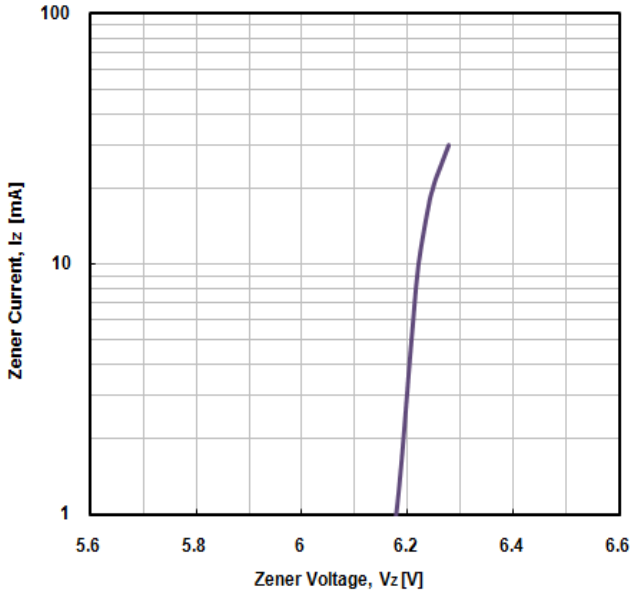


Fig. 2) Power Dissipation vs. Ambient Temperature

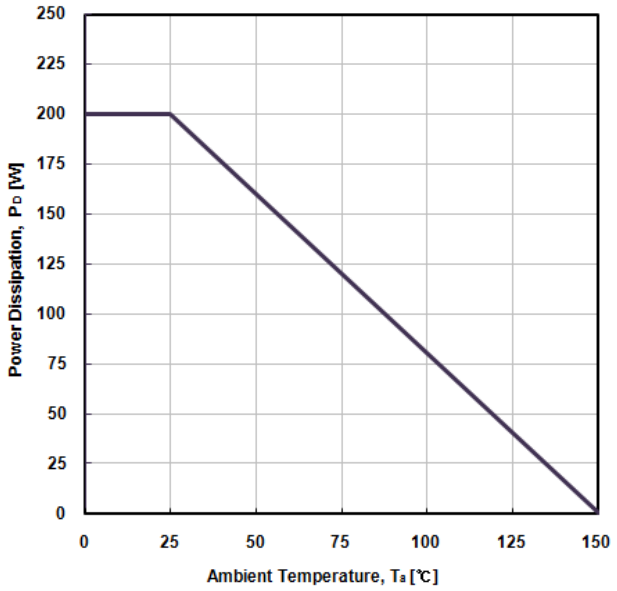
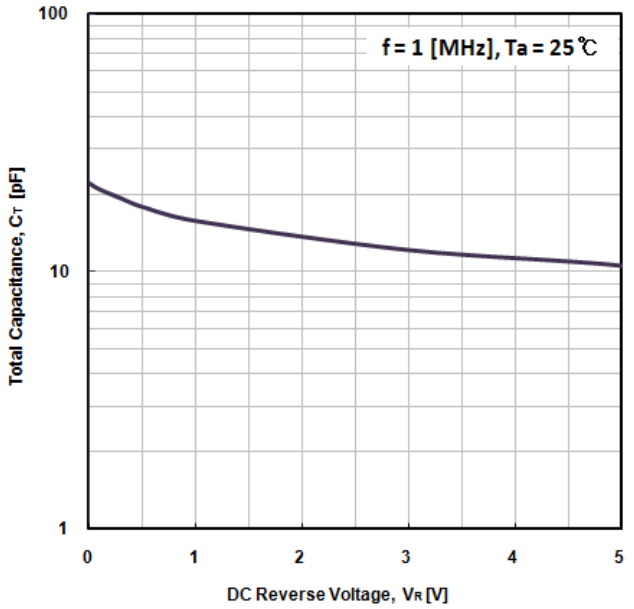
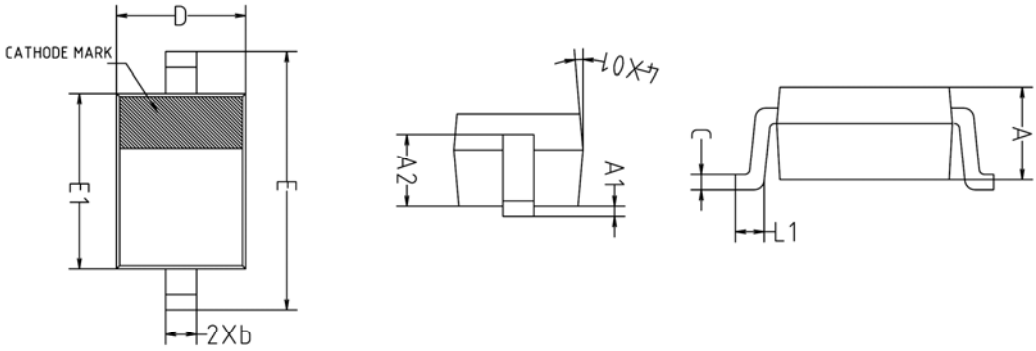


Fig. 3) Typical Capacitance Characteristics

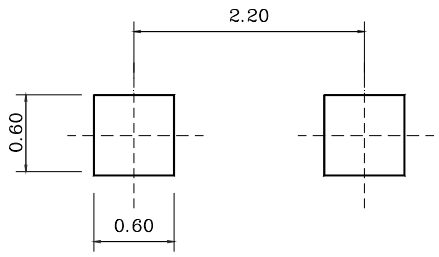


Package Outline Dimensions



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	
θ2	5° REF			

※ Recommend PCB solder land (Unit : mm)



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