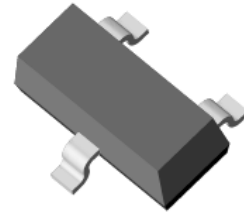


ESD Protection Zener Diode

General Description

SDZ5V6AWA in small SOT-23 SMD plastic package designed to protect one data line from the damage caused by Electro Static Discharge (ESD) and other transients.



SOT-23



Features and Benefits

- ESD protection of one data 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

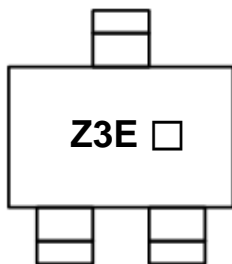
Applications

- ESD protection

Ordering Information

Part Number	Marking Code	Package	Packaging
SDZ5V6AWA	Z3E □	SOT-23	Tape & Reel

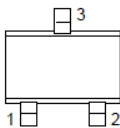
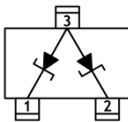
Marking Information



Z3E = Specific Device Code

□ = Year & Week Code Marking

Pinning Information

Pin	Description	Simplified Outline	Graphic Symbol
1	Cathode (Diode 1)		
2	Cathode (Diode 2)		
3	Common Anode		

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

Characteristic	Symbol	Ratings	Unit
Peak Pulse Power (tp = 8/20 μ s)	P _{PK}	100	W
Power dissipation ¹⁾	P _D	200	mW
Junction temperature	T _J	150	°C
Storage temperature range	T _{stg}	-55 ~ 150	°C

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	5.31	-	5.92	V
Dynamic impedance	Z _{ZT}	I _Z =5mA	-	-	60	Ω
KNEE dynamic impedance	Z _{ZK}	I _Z =0.5mA	-	-	200	Ω
Reverse current	I _R	V _R =2.5V	-	-	1	μ A
Total capacitance	C _T	V _R =0V, f=1MHz	-	30	-	pF

Rating and Characteristic Curves

Fig. 1) Typical Zener Characteristics

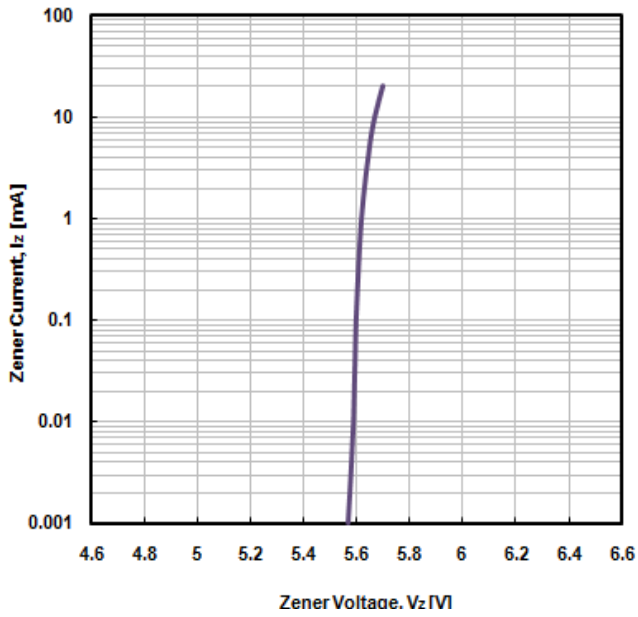
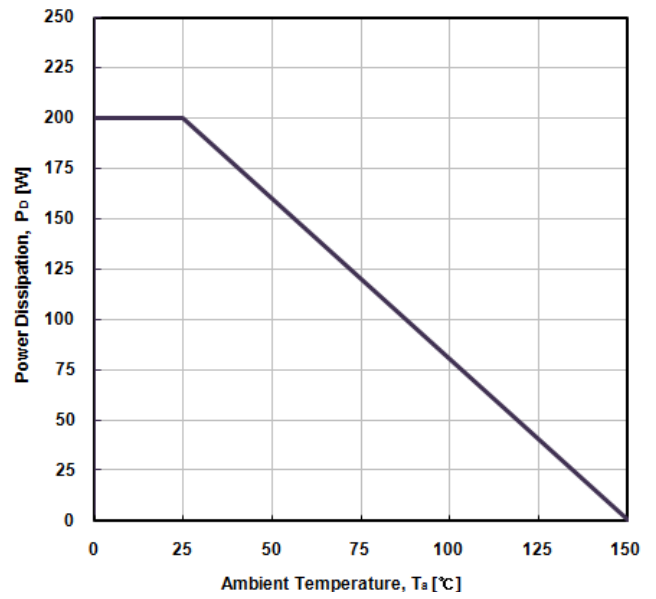
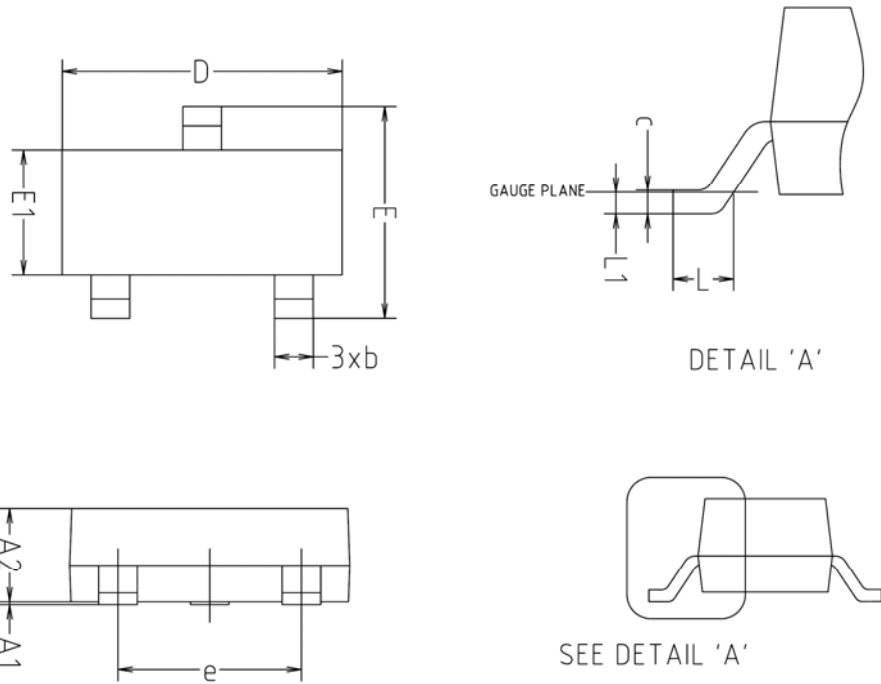


Fig. 2) Power Dissipation vs. Ambient Temperature



Package Outline Dimensions



SYMBOL	MILLIMETERS			NOTE
	MINIMUM	NOMINAL	MAXIMUM	
A1	0.00	-	0.10	
A2	0.82	-	1.02	
b	0.39	0.42	0.45	
c	0.09	0.12	0.15	
D	2.80	2.90	3.00	
E	2.20	2.40	2.60	
E1	1.20	1.30	1.40	
e	1.90BSC			
L	0.20	-	-	
L1	0.12BSC			

※ Recommend PCB solder land (Unit : mm)



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