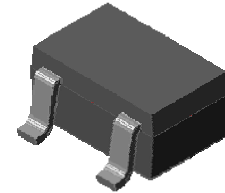


## Small Signal Zener Diode

### 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.



**SOT-23**



### 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

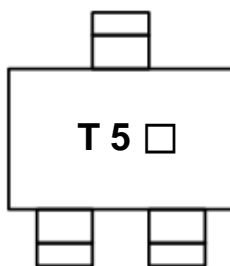
### Applications

- Voltage regulator

### Ordering Information

Part Number	Marking Code	Package	Packaging
SDZ6V8WAU	T5 □	SOT-23	Tape & Reel

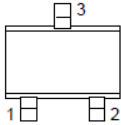
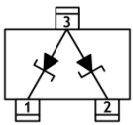
### Marking Information



T 5 = 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** ( $T_{amb}=25^{\circ}\text{C}$ , Unless otherwise specified)

Characteristic	Symbol	Ratings	Unit
Power dissipation <sup>1)</sup>	$P_D$	200	mW
Operating junction temperature	$T_J$	150	$^{\circ}\text{C}$
Storage temperature range	$T_{stg}$	-55 $^{\circ}\text{C}$ to +150 $^{\circ}\text{C}$	$^{\circ}\text{C}$

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

<sup>1)</sup> 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	$V_Z$	$I_Z=5\text{mA}$	6.50	-	7.10	V
Dynamic impedance	$Z_{ZT}$	$I_Z=5\text{mA}$	-	-	8	$\Omega$
KNEE dynamic impedance	$Z_{ZK}$	$I_Z=0.25\text{mA}$	-	-	750	$\Omega$
Reverse leakage current	$I_R$	$V_R=5.2\text{V}$	-	-	1	$\mu\text{A}$

## Rating and Characteristic Curves

Fig. 1) Typical Zener Characteristics

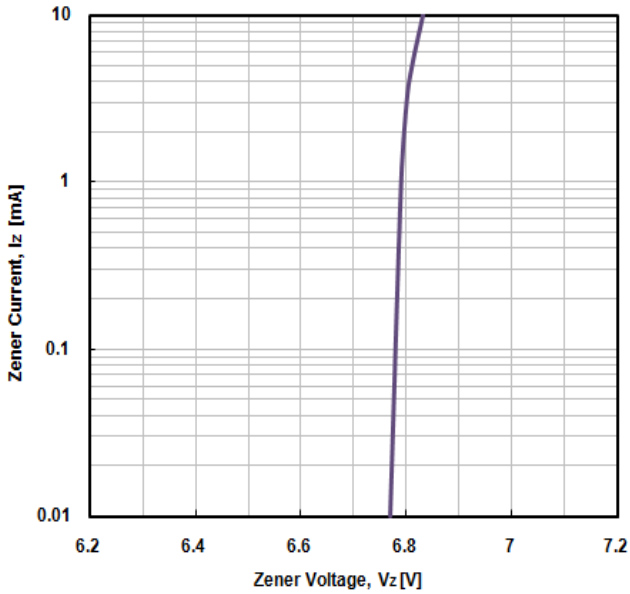


Fig. 2) Zener voltage vs. Ambient Temperature

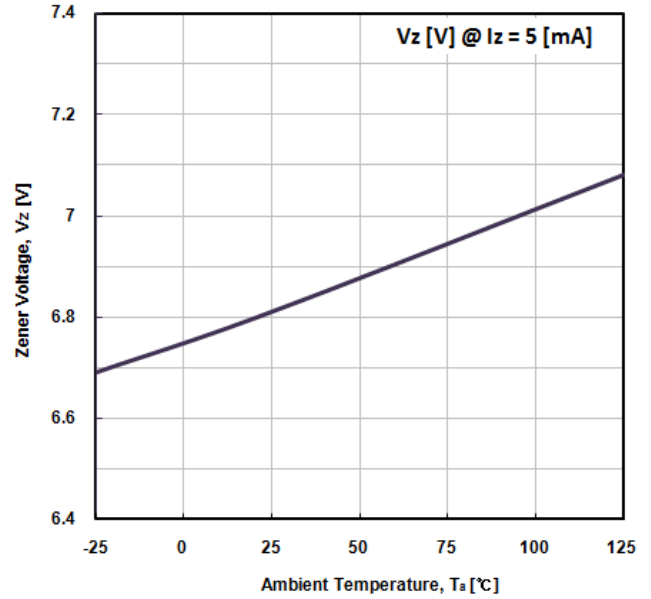


Fig. 3) Typical Capacitance Characteristics

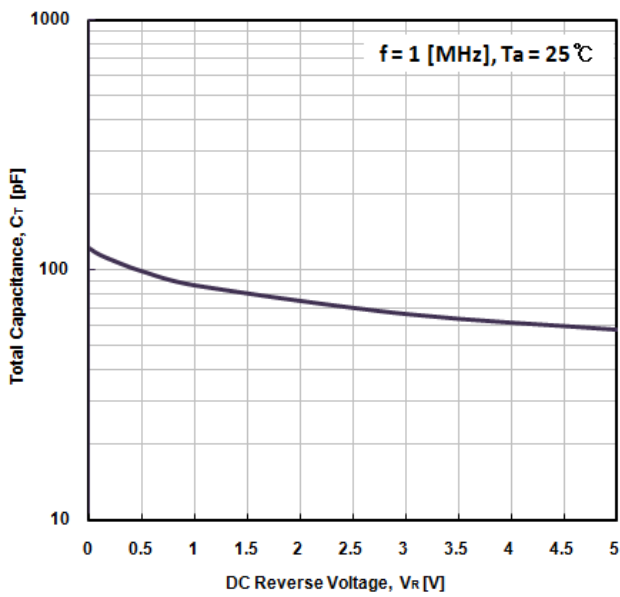
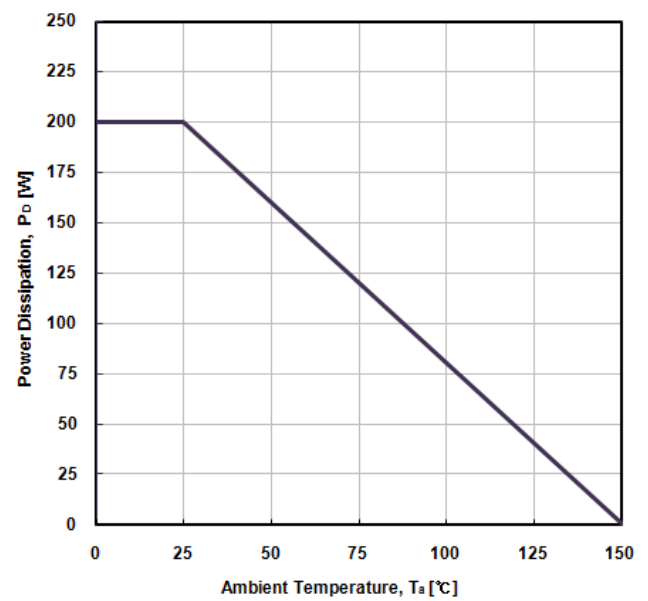
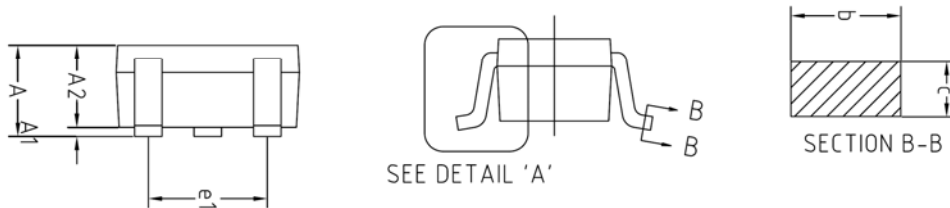
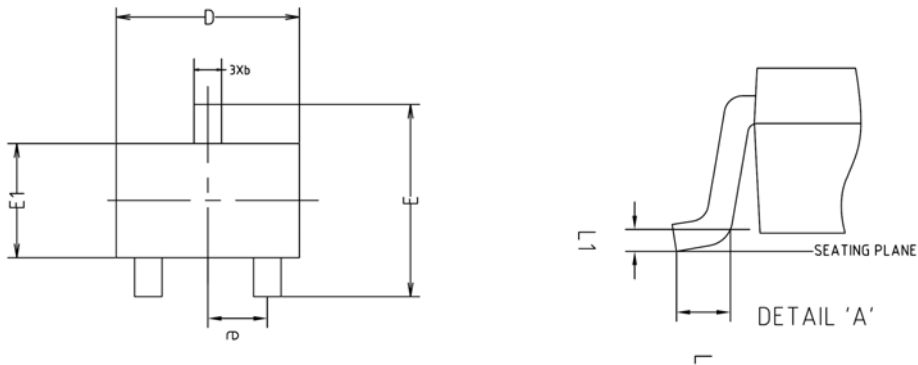


Fig. 4) Power Dissipation vs. Ambient Temperature

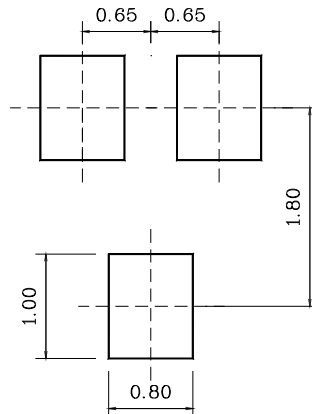


## Package Outline Dimensions



SYMBOL	MILLIMETERS			NOTE
	MINIMUM	NOMINAL	MAXIMUM	
A	0.90	-	1.25	
A1	0.00	-	0.10	
A2	0.85	0.90	0.95	
b	0.30	-	0.40	
c	0.10	-	0.25	
D	1.90	2.00	2.10	
E	1.95	2.10	2.25	
E1	1.15	1.25	1.35	
e	0.65BSC			
e1	1.20	-	1.40	
L	0.10	-	-	
L1	0.12BSC			

※ Recommend PCB solder land (Unit : mm)



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