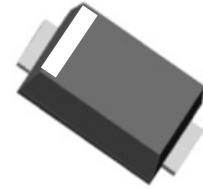


Small Signal Zener Diode

Features and Benefits

- Silicon planar power Zener diode
- Low Zener impedance and low leakage current
- High reliability and very high stability
- “Green” device and RoHS compliant device



SOD-123

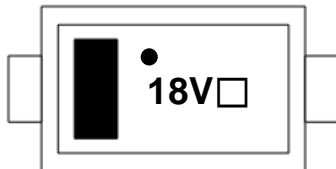
Applications

- Constant voltage regulation
- Reference voltage application

Ordering Information


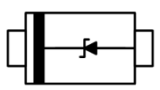
Part Number	Marking Code	Package	Packaging
SDZ18VCG	•18V□	SOD-123	Tape & Reel

Marking Information



- 18V = 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	1000	mW
Maximum operating junction temperature	T_J	150	$^{\circ}\text{C}$
Storage temperature range	T_{stg}	-55 to +150	$^{\circ}\text{C}$
Operating junction temperature range	T_{opr}	-55 to +150	$^{\circ}\text{C}$

¹⁾ Device mounted on FR-4 board with Single Side Copper, Mounting Pad for 4.5x4.5 mm.

Thermal Characteristics ($T_{amb}=25^{\circ}\text{C}$, Unless otherwise specified)

Characteristic	Symbol	Ratings	Unit
Thermal resistance, junction to ambient ¹⁾	$R_{th(j-a)}$	125	$^{\circ}\text{C/W}$

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	$I_Z = 20\text{mA}$	18.0	19.0	20.3	V
Reverse leakage current	I_R	$V_R = 13\text{V}$	-	-	10	μA

Rating and Characteristic Curves

Fig. 1) Typical Zener Characteristics

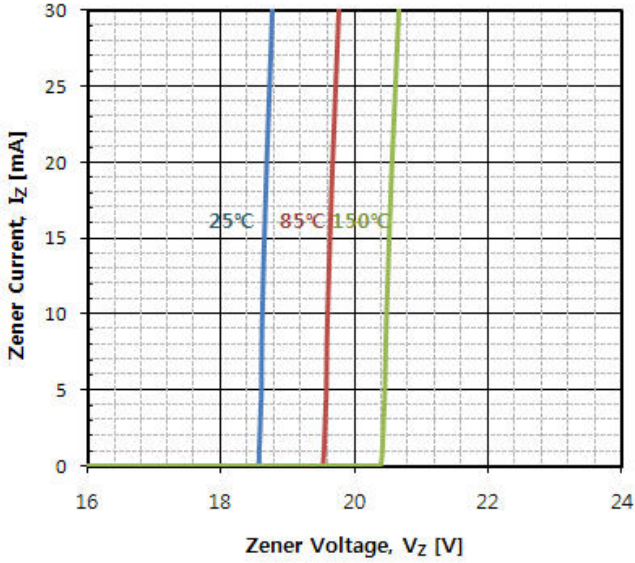


Fig. 2) Typical Forward Characteristics

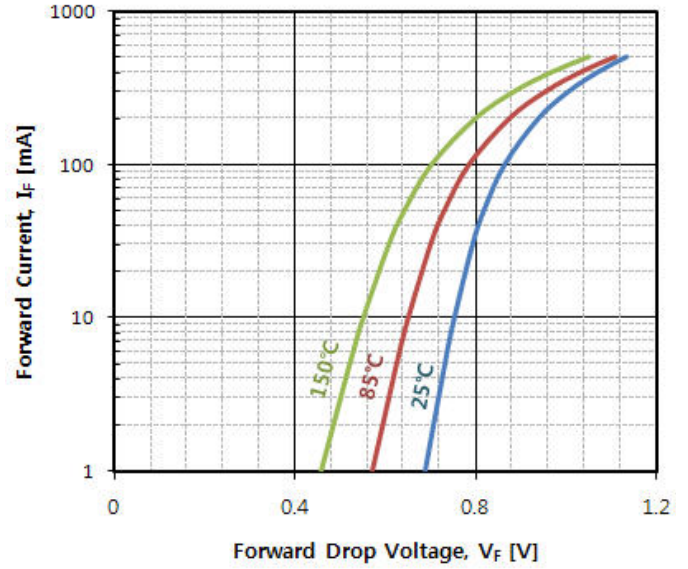


Fig. 3) Typical Reverse Characteristics

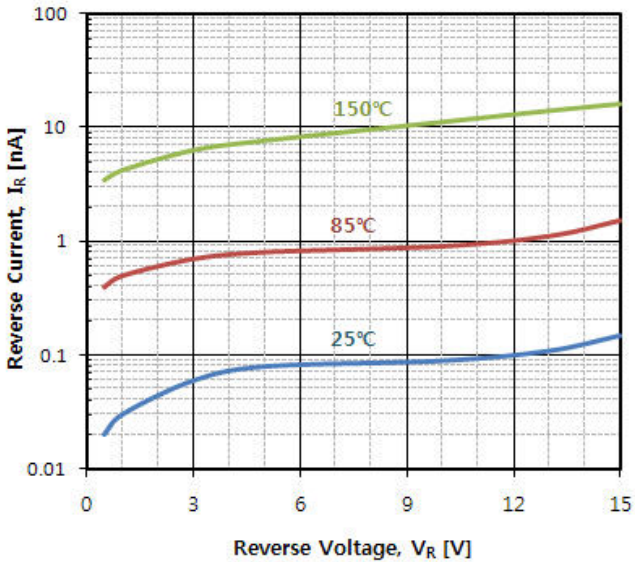


Fig. 4) Power Dissipation vs. Ambient Temperature

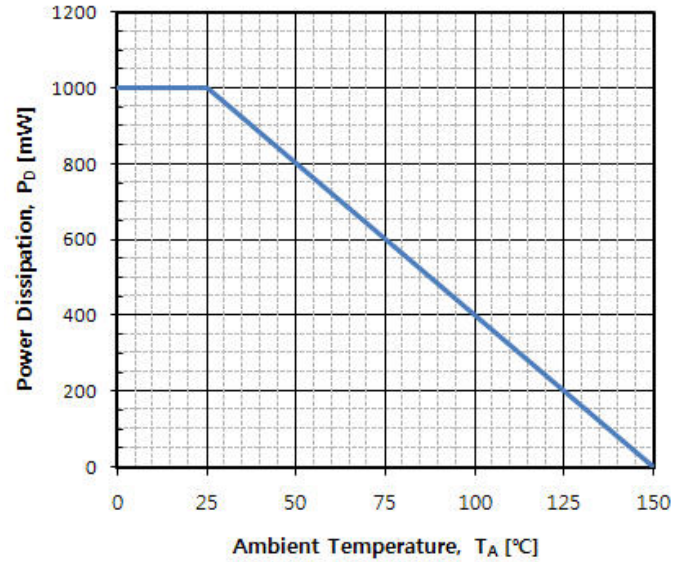
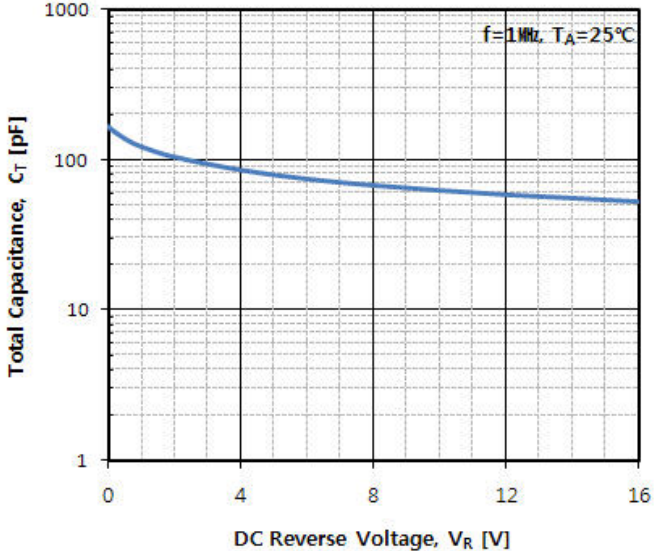
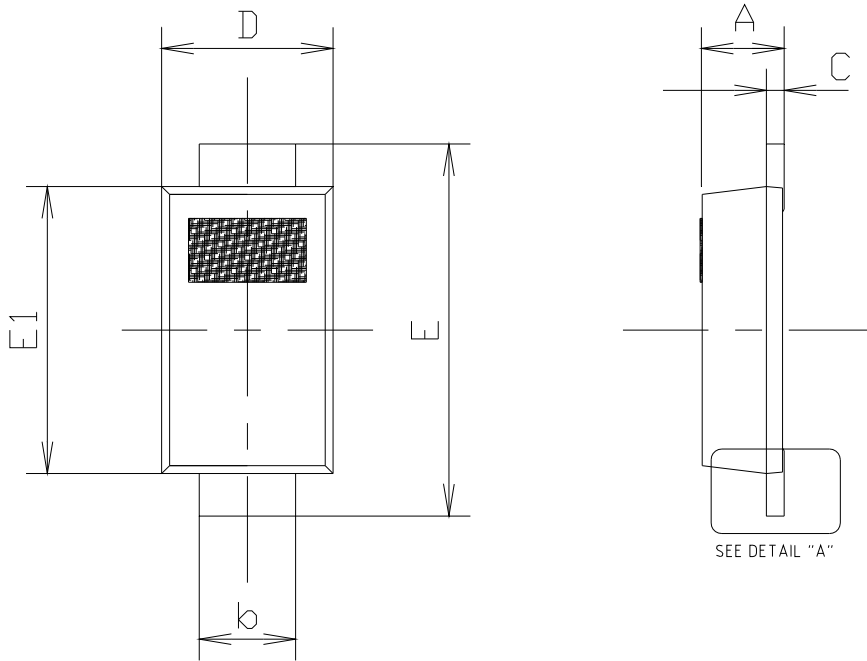


Fig. 5) Typical Capacitance Characteristics



Package Outline Dimensions (Unit : mm)



SYMBOL	MILLIMETERS			NOTE
	MINIMUM	NOMINAL	MAXIMUM	
A	0.70	0.85	1.00	
b	0.50	0.75	1.00	
c	0.12	0.16	0.20	
D	1.50	1.60	1.70	
E	3.30	3.50	3.70	
E1	2.50	2.65	2.80	

The AUK Corp. products are intended for the use as components in general electronic equipment (Office and communication equipment, measuring equipment, home appliance, etc.).

Please make sure that you consult with us before you use these AUK Corp. products in equipments which require high quality and / or reliability, and in equipments which could have major impact to the welfare of human life(atomic energy control, airplane, spaceship, transportation, combustion control, all types of safety device, etc.). AUK Corp. cannot accept liability to any damage which may occur in case these AUK Corp. products were used in the mentioned equipments without prior consultation with AUK Corp..

Specifications mentioned in this publication are subject to change without notice.