

## 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



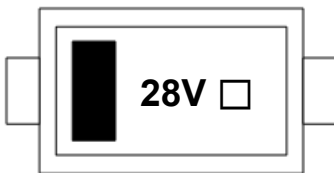
### Applications

- Constant voltage regulation
- Reference voltage application

### Ordering Information

Part Number	Marking Code	Package	Packaging
SDZ28VG	28V □	SOD-123	Tape & Reel

### Marking Information



28V = 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<sub>amb</sub>=25°C, Unless otherwise specified)

Characteristic	Symbol	Ratings	Unit
Power dissipation <sup>1)</sup>	P <sub>D</sub>	500	mW
Operating junction temperature	T <sub>J</sub>	150	°C
Storage temperature range	T <sub>stg</sub>	-55°C to +150°C	°C

<sup>1)</sup> Device mounted on FR4 PCB, Single Side Copper, Mounting Pad for 2.5x2.5 mm.

## Electrical Characteristics (T<sub>amb</sub>=25°C, Unless otherwise specified)

Device	Marking Info.	V <sub>Z</sub>			Z <sub>ZT</sub>		Z <sub>ZK</sub>		I <sub>R</sub>	
		@ I <sub>ZT</sub>	Min	Max	Max	@ I <sub>ZT</sub>	Max	@ I <sub>ZK</sub>	Max	@ V <sub>R</sub>
		mA	V		Ω	mA	Ω	mA	μA	V
<b>SDZ3V0G</b>	3V0	20	2.85	3.15	29	20	1600	0.25	50	1.0
<b>SDZ3V3G</b>	3V3	20	3.14	3.50	28	20	1600	1.0	25	1.0
<b>SDZ3V6G</b>	3V6	20	3.42	3.78	24	20	1700	0.25	15	1.0
<b>SDZ3V9G</b>	3V9	20	3.71	4.10	23	20	1900	0.25	5	1.0
<b>SDZ5V1G</b>	5V1	20	4.94	5.20	17	20	1600	0.25	5	1.5
<b>SDZ5V6G</b>	5V6	20	5.45	5.73	40	20	500	1.0	5	2.5
<b>SDZ6V2G</b>	6V2	20	6.08	6.35	7	20	1600	0.25	5	4.0
<b>SDZ6V8G</b>	6V8	20	6.66	7.01	15	20	75	1.0	1.8	4.0
<b>SDZ7V5G</b>	7V5	20	7.29	7.67	6	20	500	0.25	3	6.0
<b>SDZ8V2G</b>	8V2	20	8.04	8.40	15	20	120	1.0	0.7	5.0
<b>SDZ9V1G</b>	9V1	20	8.85	9.28	10	20	600	0.25	3	7.0
<b>SDZ12VG</b>	12V	10	11.44	12.24	25	10	150	1.0	0.2	9.0
<b>SDZ13VG</b>	13V	10	12.70	13.30	30	10	160	1.0	0.2	10.0
<b>SDZ15VG</b>	15V	8.5	14.25	15.75	16	8.5	600	0.25	0.1	11.0
<b>SDZ16VG</b>	16V	10	15.64	16.38	40	10	188	1.0	0.2	12.0
<b>SDZ18VG</b>	18V	7.0	16.80	19.10	21	7.0	600	0.25	0.1	14.0
<b>SDZ20VG</b>	20V	6.2	19.00	21.00	25	6.2	600	0.25	0.1	15.0
<b>SDZ24VG</b>	24V	5.2	22.80	25.20	33	5.2	600	0.25	0.1	18.0
<b>SDZ28VG</b>	28V	4.5	26.60	29.40	44	4.5	600	0.25	0.1	21.0
<b>SDZ30VG</b>	30V	4.2	28.50	31.50	49	4.2	600	0.25	0.1	23.0
<b>SDZ33VG</b>	33V	3.8	31.35	34.65	58	3.8	700	0.25	0.1	25.0
<b>SDZ36VG</b>	36V	3.4	34.2	37.8	70	3.4	700	0.25	0.1	27.0

## Rating and Characteristic Curves

Fig. 1) Typical Zener Characteristics

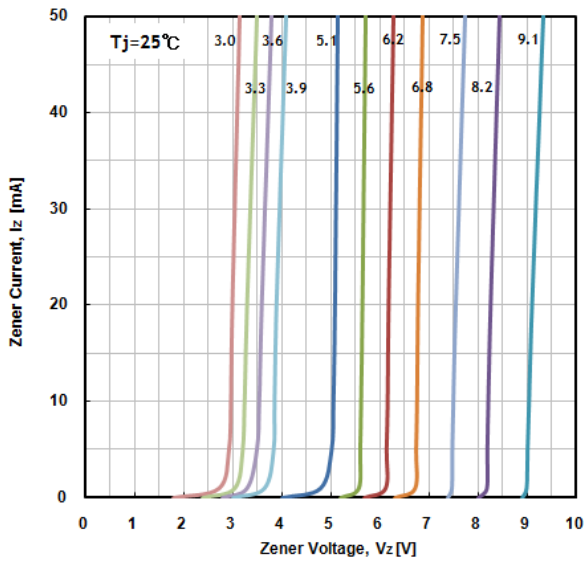


Fig. 2) Typical Zener Characteristics

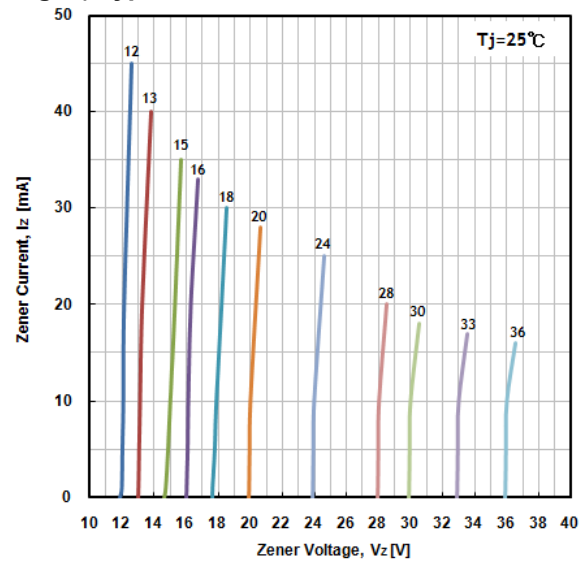


Fig. 3) Typical Forward Characteristics

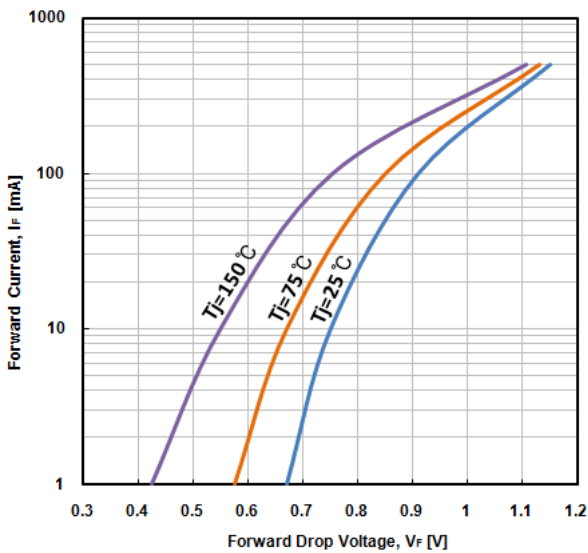


Fig. 4) Power Dissipation vs. Ambient Temperature

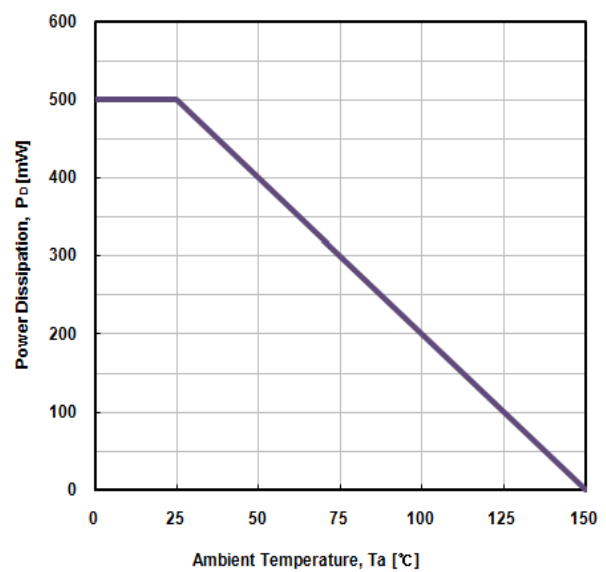
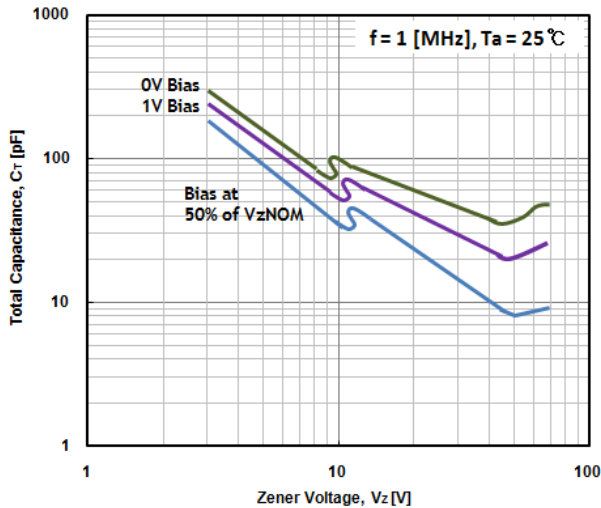
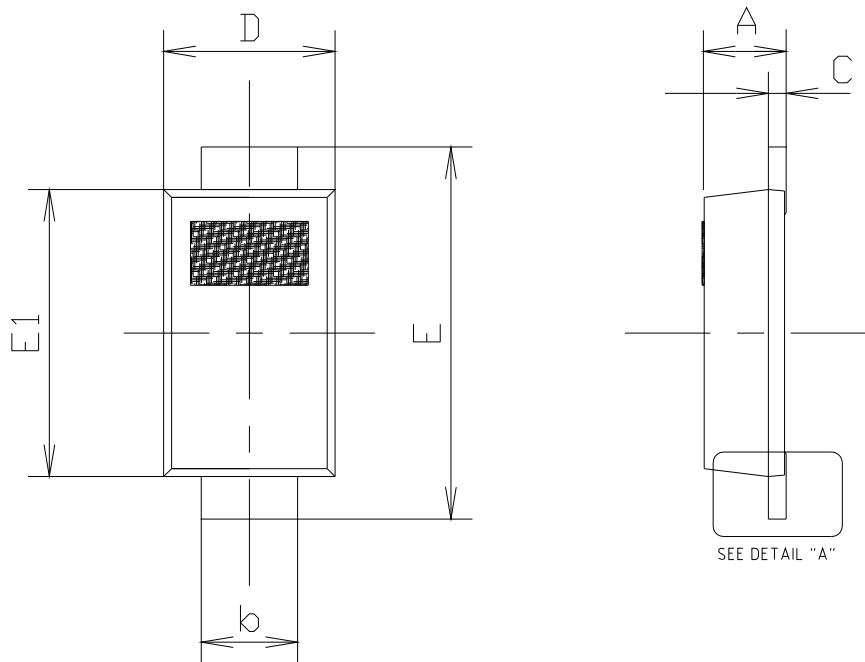


Fig. 5) Typical Capacitance Characteristics

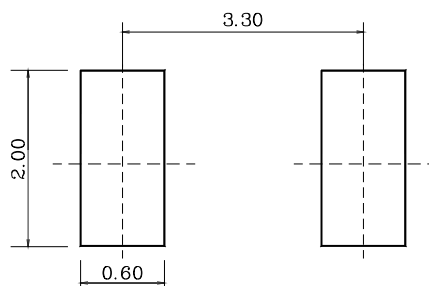


Package Outline Dimensions



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	

※ Recommend PCB solder land (Unit : mm)



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