

**SEZ52C5V1-5**  
**SMD Zener Diodes**

Revision: C

**General Description**

Silicon planar zener diode in a small plastic SOD-523 package.

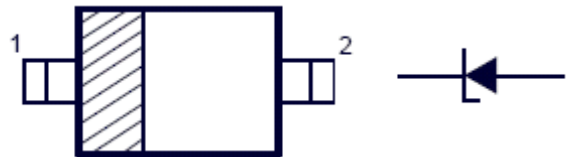
**Features**

- Total power dissipation: 500mW
- Designed for mounting on small surface
- Extremely thin/leadless package
- Pb free product

**Functional diagram**



SOD-523



Note: 1-Cathode;2-Anode

**Absolute Maximum Ratings (T<sub>a</sub>=25°C)**

Symbol	Parameter	Value	Unit
	Zener Current see Table "Characteristics"		
P <sub>tot</sub>	Power Dissipation	500	mW
V <sub>F</sub>	Maximum Forward Voltage Drop at I <sub>F</sub> =100mA	1.25	V
IFSM	Forward current , surge peak 8.3 ms single half sine-wave superimposed on rate load (JEDEC method)	2.0	A
T <sub>S</sub>	Storage Temperature Range	-65 to +150	°C

**Electrical Characteristics**

Type	Zener Voltage			Operating resistance		Rising operating Resistance		Reverse current	
	VZ(V)			ZZT(Ohm)		ZZK(Ohm)		IR(uA)	
	Typ	Max	Iz(mA)	Max	Iz	Iz	Max	Iz	Max
<b>SEZ52C5V1-5</b>	5.10	-	5	55	5	0.5	500	2	2

**Breakdown Characteristics  $T_j = \text{constant}$  (pulse)**

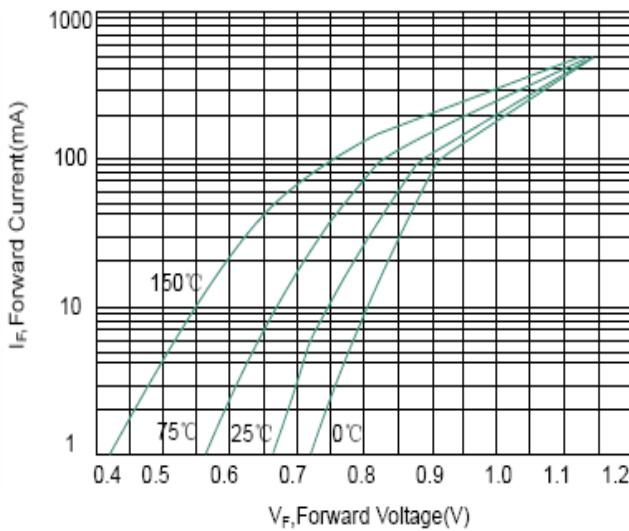


Fig 1. Typical Forward Voltage

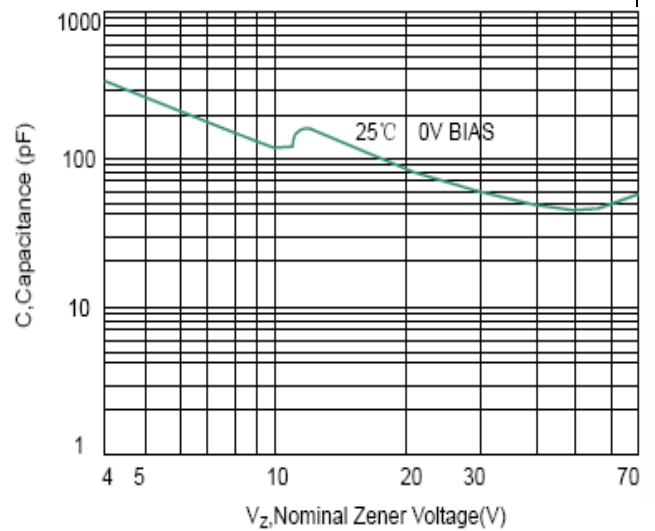


Fig 2. Typical Capacitance

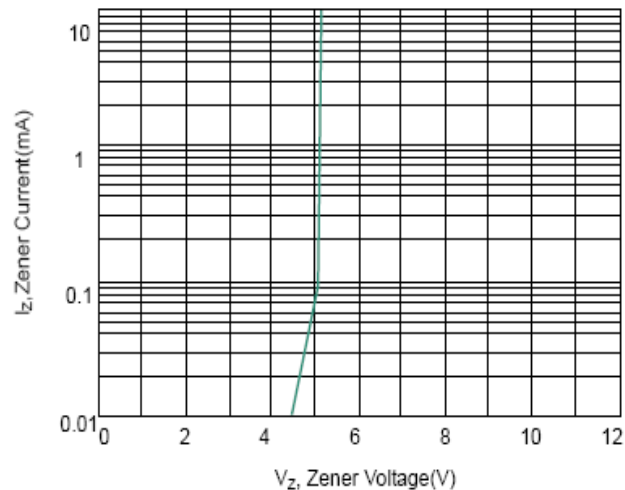


Fig 3. Zener Voltage versus Zener Current

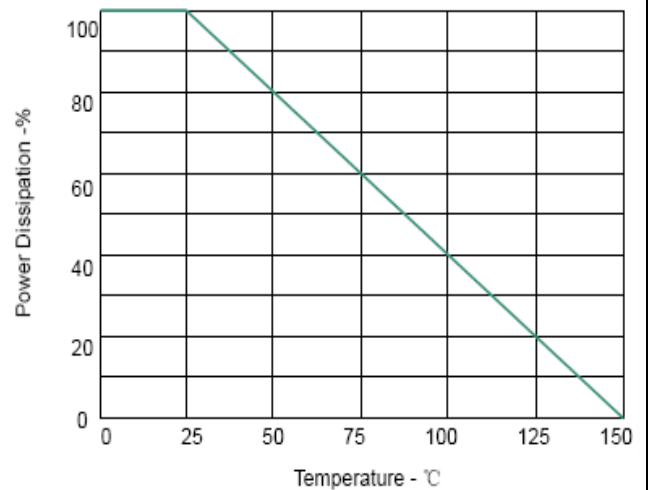
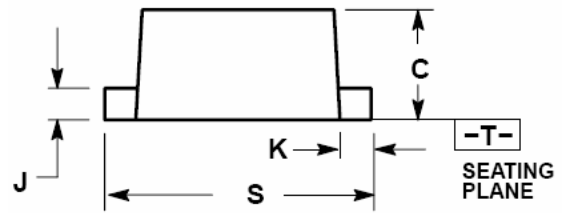
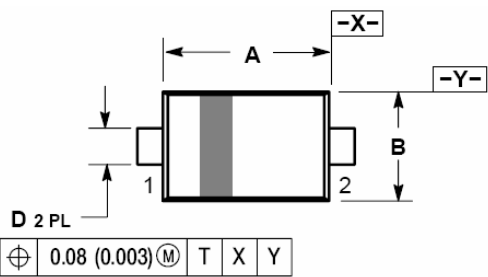


Fig 4. Steady State Power Detating

## SOD-523 Mechanical Data



⊕ 0.08 (0.003) M T X Y

Dim	Millimeters			INCHES		
	MIN	NOM	MAX	MIN	NOM	MAX
A	1.10	1.20	1.30	0.043	0.047	0.051
B	0.70	0.80	0.90	0.028	0.032	0.035
C	0.50	0.60	0.70	0.020	0.024	0.028
D	0.25	0.30	0.35	0.010	0.012	0.014
J	0.07	0.14	0.20	0.0028	0.0055	0.0079
K	0.15	0.20	0.25	0.006	0.008	0.010
S	1.50	1.60	1.70	0.059	0.063	0.067

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