



**Surface Mount Zener Diode****Zener Voltage - 33V****Description**

- Surface Device Type Mounting
- Low Zener Impedance
- Power Dissipation of 500mW
- High Stability and High Reliability

**Mechanical Data**

- Case: SOD123 Package
- Case Material: "Green" Molding Compound UL Flammability Classification Rating 94V-0
- Terminals: Matte tin plated, solderable per MIL-STD-750, method 2026
- Component in accordance to RoHS
- Halogen Free

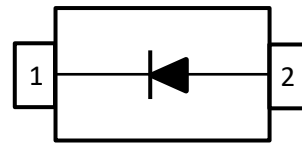
Note: Products with logo  or  are made by HY Electronic (Cayman) Limited.

**Ordering Information**

- Package :SOD123
- Reel Size :7 (inches)
- Quantity Per Reel :3,000/Tape & Reel
- Quantity One Box :45,000/Tape & Reel

**Package Outline**

SOD123 Top View

**Device Schematic & PIN Configuration****Product Type Marking Code****Maximum Ratings (@TA = +25°C, unless otherwise specified.)****Absolute Ratings**

Parameter	Symbol	Value	Unit
Forward Voltage @ IF = 10mA	V <sub>F</sub>	0.9 <sup>(1)</sup>	V
Power Dissipation	P <sub>D</sub>	500 <sup>(2)</sup>	mW
Junction Temperature	T <sub>J</sub>	150	°C
Storage Temperature Range	T <sub>STG</sub>	-65 to +150	°C
Thermal Resistance from Junction to Ambient Air	R <sub>θJA</sub>	357	°C/W

**Electrical Characteristics**

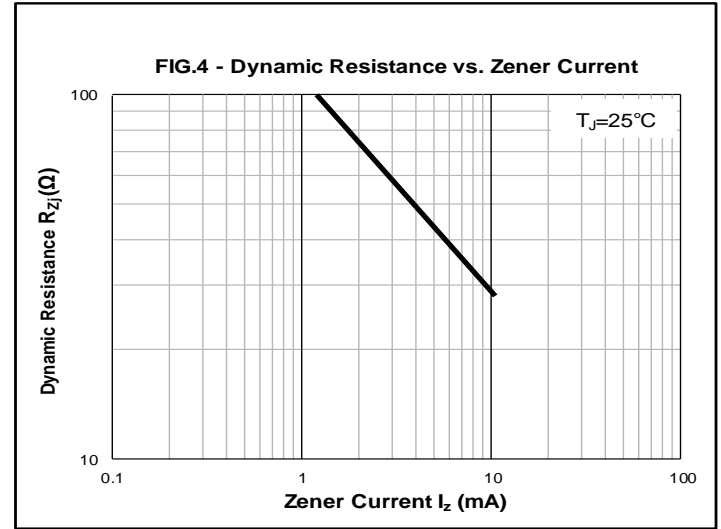
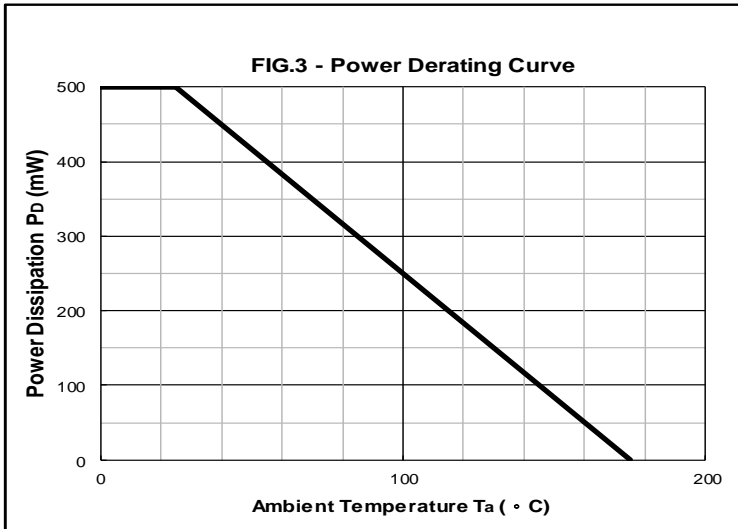
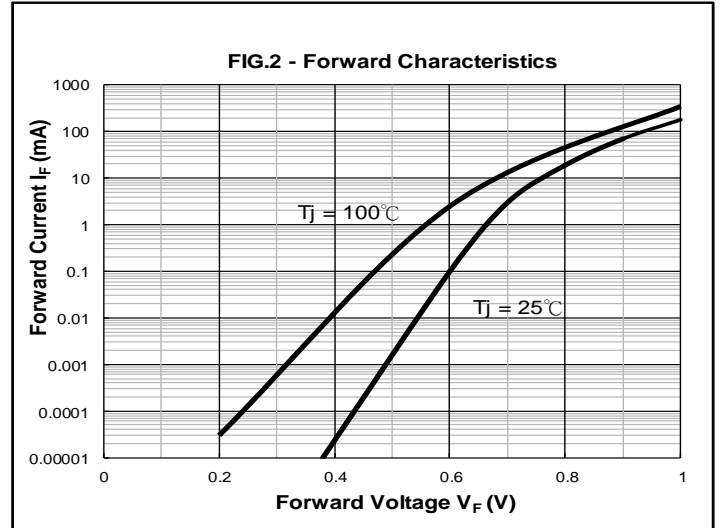
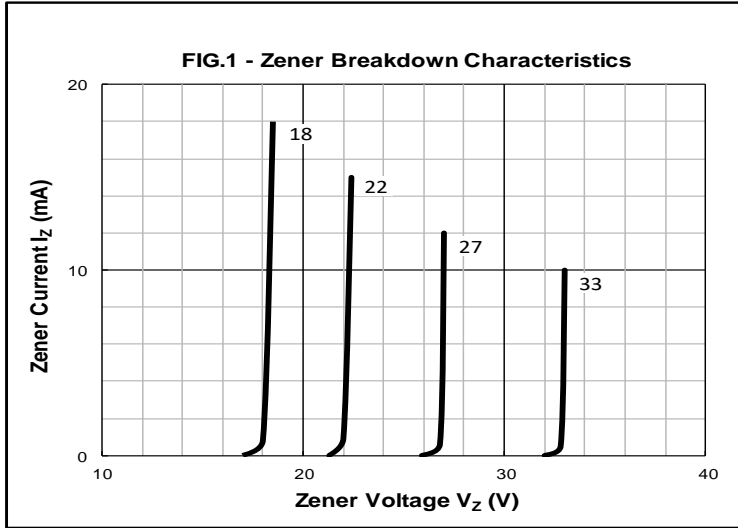
Parameter	Test Conditions	Symbol	Min	Typ	Max	Unit
Zener Voltage Range	V <sub>z@Izt</sub>	V <sub>z</sub>	32.34	33	33.66	V
Zener Impedance	Z <sub>zt@Izt</sub>	Z <sub>zt</sub>	–	–	80	Ω
Zener Impedance	Z <sub>zk@Izk</sub>	Z <sub>zk</sub>	–	–	325	Ω
Reverse Leakage Current	I <sub>R@VR</sub>	I <sub>R</sub>	–	–	0.1	uA
Typical Temperature Coefficient	T <sub>c@Iztc</sub>	I <sub>ztc</sub>	27.4	–	33.4	mV/°C

Note:1. Short duration test pulse used to minimize self-heating effect

2. Device mounted on ceramic PCB: 7.6mm x 9.4mm x 0.87mm with pad areas 25mm<sup>2</sup>

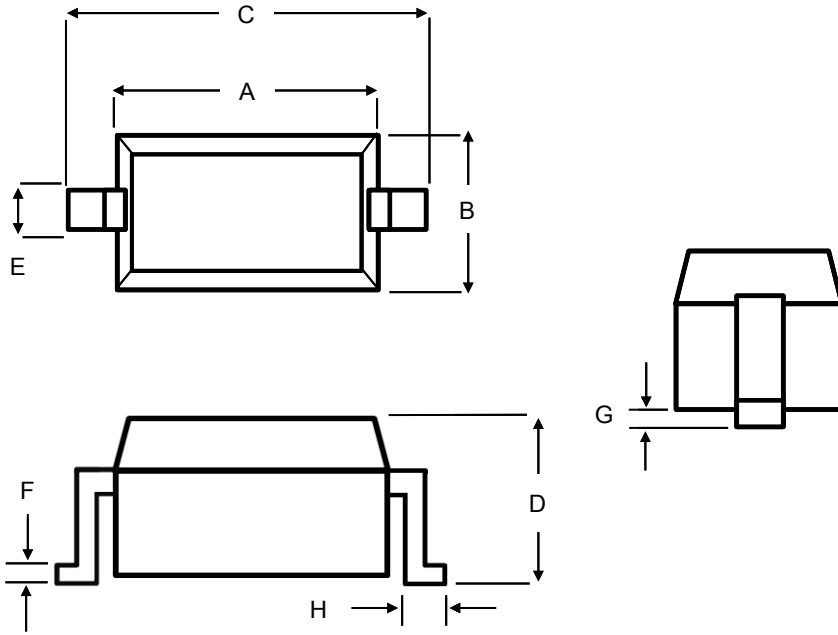


## Rating and Characteristic Curves



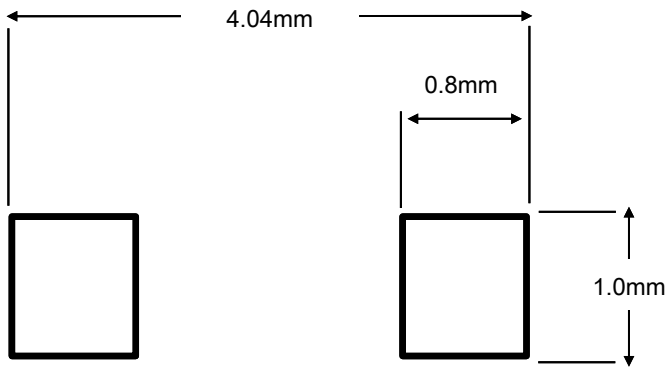


## Package Outline Dimensions



SOD123 Package		
Dim	Min	Max
A	2.60	2.80
B	1.50	1.70
C	3.55	3.85
D	1.05	1.25
E	0.45	0.65
F	0.08	0.15
G	-	0.10
H	0.25	0.45
All Dimensions in mm		

## Suggested Soldering Pad Layout



**Note:**

- 1.The pad layout is for reference purposes only.
- 2.General tolerance  $\pm 0.05\text{mm}$



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