

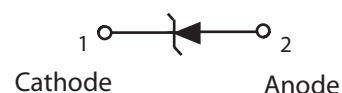
Surface Mount Zener Diodes

Features:

- 150mw Power Dissipation
- Ideal for Surface Mount Application
- Zener Breakdown Voltage 8.2V
- We declare that the material of product compliant with RoHS
- S- Prefix for Automotive and Other Applications Requiring Unique Site and Control Change Requirements; AEC-Q101 Qualified and PPAP Capable.



Equivalent Circuit Diagram



Mechanical Data:

- Case : SOD523 Molded plastic
- Terminals: Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Indicated by Polarity Band
- Marking: Marking Code (See Table on Page 2)
- 100% Matte Sn (Tin)

Maximum Ratings and Electrical Characteristics (TA=25 °C Unless Otherwise Noted)

Characteristics	Symbol	Value	Unit
Total Power Dissipation on FR-5 Board ⁽¹⁾	P _D	150	mW
Forward Voltage @ IF=10mA	V _F	0.9	V
Junction and Storage Temperature Range	T _J , T _{STG}	-55 to +150	°C

ORDERING INFORMATION

Device	Package	Shipping
AS8V2B151T	SOD-523	3000/Tape&Reel

Electrical Characteristics ($T_A=25^{\circ}\text{C}$ unless otherwise noted, $V_F=0.9\text{V Max}@ I_F=10\text{mA}$)

Device	Marking	Zener Voltage (Note 1)				Zener Impedance			Leakage Current		θV_Z (mV/k) @ I_{ZT}		C @ $V_R = 0$ $f = 1 \text{ MHz}$
		V_Z (Volts)			@ I_{ZT}	Z_{ZT} @ I_{ZT}	$Z_{ZK} @ I_{ZK}$		$I_R @ V_R$				
		Min	Nom	Max	mA	Ω	Ω	mA	μA	Volts	Min	Max	pF
AS8V2B151T	Z7	7.7	8.2	8.7	5	15	160	1.0	0.7	5.0	3.2	6.2	135

Note:

1. Zener voltage is measured with a pulse test current I_Z at an ambient temperature of 25°C .

ELECTRICAL CHARACTERISTIC CURVES ($T_A=25^{\circ}\text{C}$)

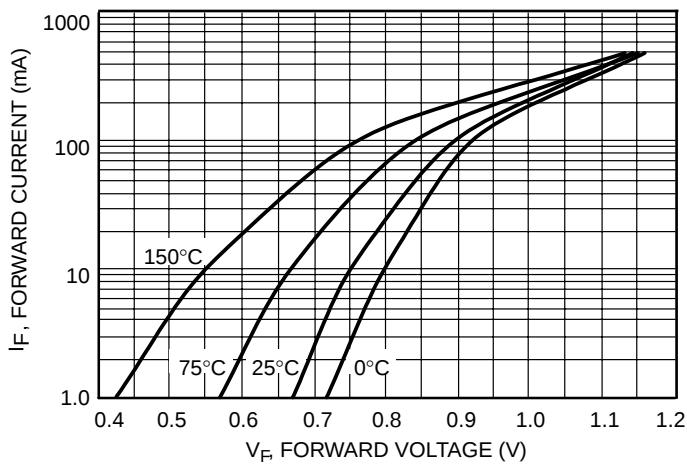


Figure 1. Typical Forward Voltage

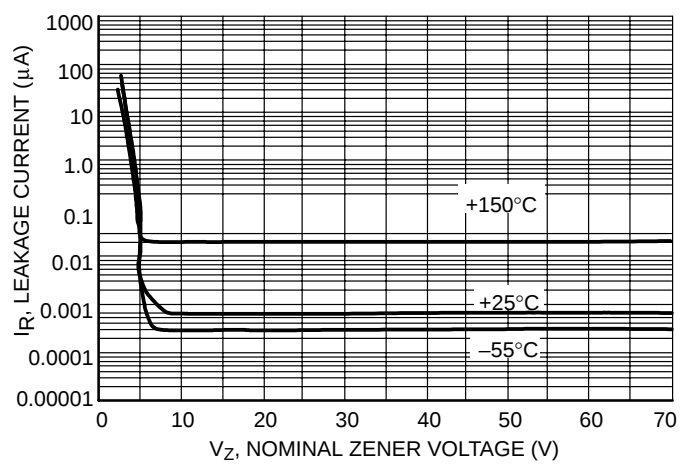


Figure 2. Typical Leakage Current

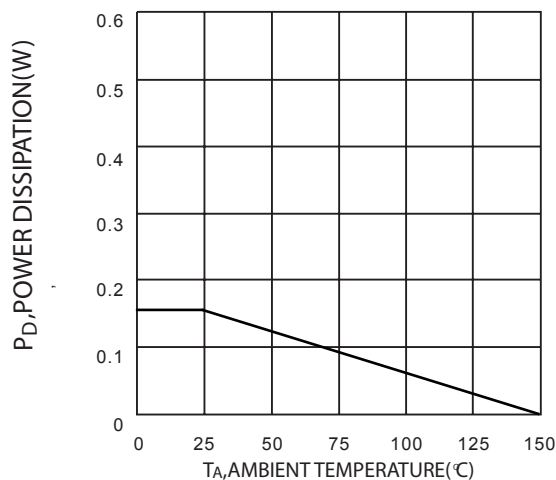


Figure 3. Power Dissipation VS Ambient temperature

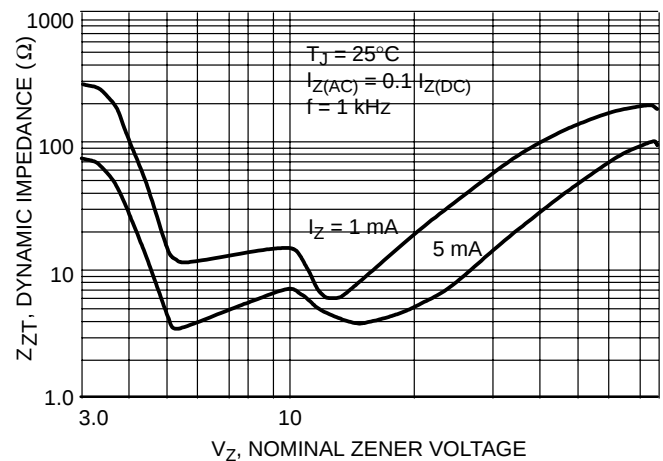
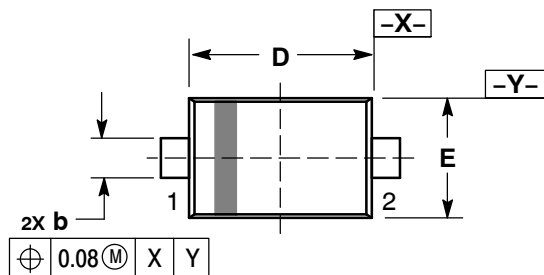
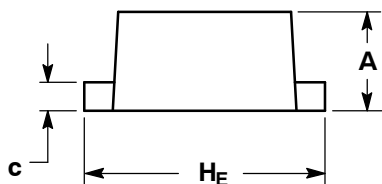


Figure 4. Effect of Zener Voltage on Zener Impedance

SC-79/SOD-523



TOP VIEW



SIDE VIEW

NOTES:

1. DIMENSIONING AND TOLERANCING PER ASME Y14.5M, 1994.
2. CONTROLLING DIMENSION: MILLIMETERS.
3. MAXIMUM LEAD THICKNESS INCLUDES LEAD FINISH. MINIMUM LEAD THICKNESS IS THE MINIMUM THICKNESS OF BASE MATERIAL.
4. DIMENSIONS D AND E DO NOT INCLUDE MOLD FLASH, PROTRUSIONS, OR GATE BURRS.

DIM	MILLIMETERS		
	MIN	NOM	MAX
A	0.50	0.60	0.70
b	0.25	0.30	0.35
c	0.07	0.14	0.20
D	1.10	1.20	1.30
E	0.70	0.80	0.90
H E	1.50	1.60	1.70
L	0.30 REF		
L2	0.15	0.20	0.25

RECOMMENDED SOLDERING FOOTPRINT*

