

## General Description:

Half watt, General purpose, Medium Current Surface Mount Zener in the SOD-123 package. The SOD-123 package has the same footprint as the glass mini-melf (LL-34) package & provides a convenient alternative to the Leadless package.

## Features:

- Compact surface mount with same footprint as mini-melf
- 500 mW rating on FR-4 or FR-5 board.
- Class 3 ESD rating (>16 kV) per Human Body Model

## Ordering:

- 7 inch reel (178 mm); 8 mm Tape; 3,000 units per reel.

## Absolute Maximum Ratings (note 1) TA = 25°C unless otherwise noted

Parameter	Value	Units
T <sub>STG</sub> - Storage Temperature	-55 to +150	°C
T <sub>J</sub> - Maximum Junction Temperature	-55 to +150	°C
P <sub>D</sub> - Total Power Dissipation at 25°C	500	mW
Derate above 25°C	6.7	mW/°C
R <sub>θJA</sub> - Thermal Resistance Junction to Ambient	340	°C/W
R <sub>θJL</sub> - Thermal Resistance Junction to Lead	150	°C/W
ΔV <sub>Z</sub> - Maximum Voltage Change (Note 2)	990	mV
Lead Solder Temperature (Max 10 second duration)	260	°C
Nominal Zener Voltage (V <sub>Z</sub> ) at 50 uA	4.7	V

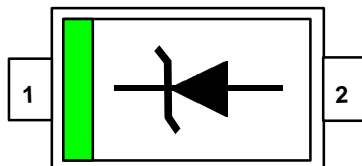
Note 1: These ratings are limiting values above which the serviceability of any semiconductor device may be impaired

Note 2: Voltage change is equal to the difference between V<sub>Z</sub> at 100 uA and V<sub>Z</sub> at 10 uA.

Top Mark: CT

1: Cathode

2: Anode



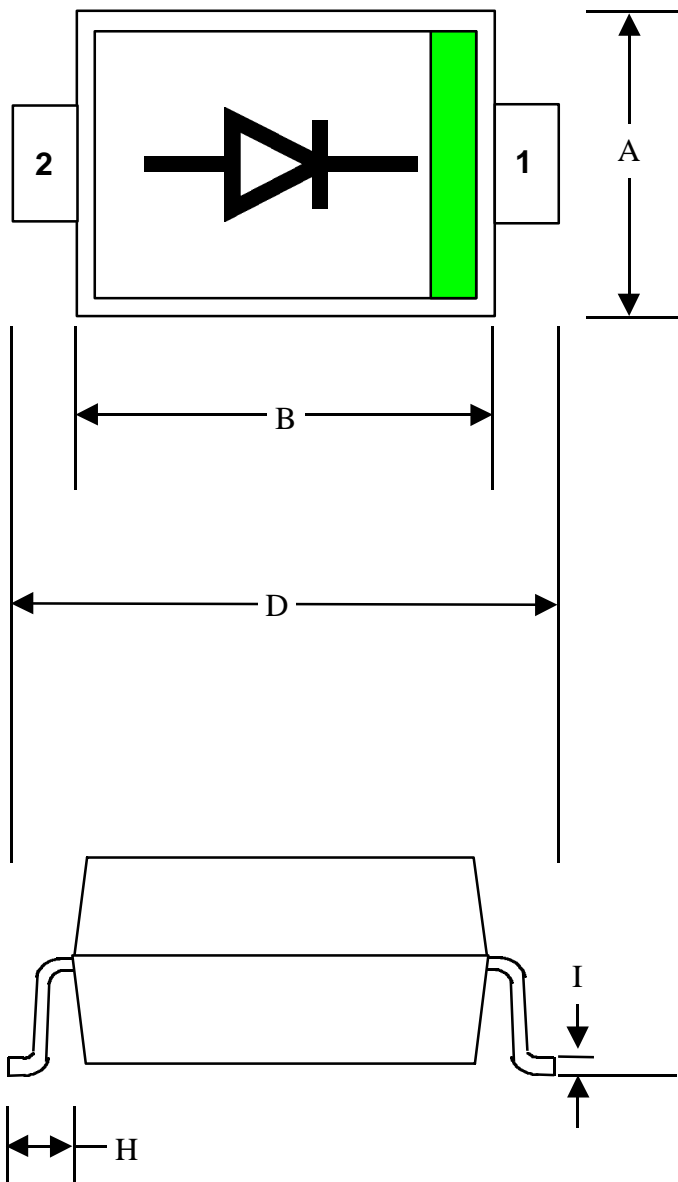
## Electrical Characteristics TA = 25°C unless otherwise noted

SYM	CHARACTERISTICS	MIN	MAX	UNITS	TEST CONDITIONS
V <sub>Z</sub>	Zener Voltage	4.47	4.94	V	I <sub>ZT</sub> = 50.0 uA D.C
I <sub>R</sub>	Reverse Leakage		10	uA	V <sub>R</sub> = 3.0 V
V <sub>F</sub>	Forward Voltage		900	mV	I <sub>F</sub> = 10 mA
ΔV <sub>Z</sub>	Delta Zener Voltage		990	mV	I <sub>F</sub> = 100 uA to 10 uA

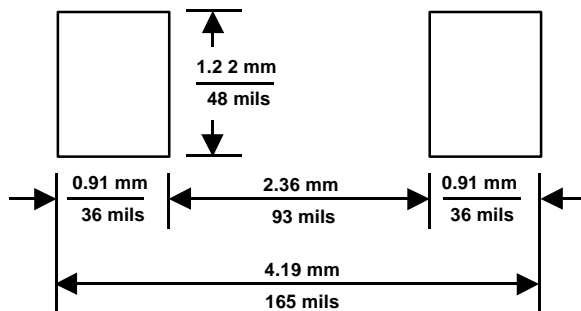
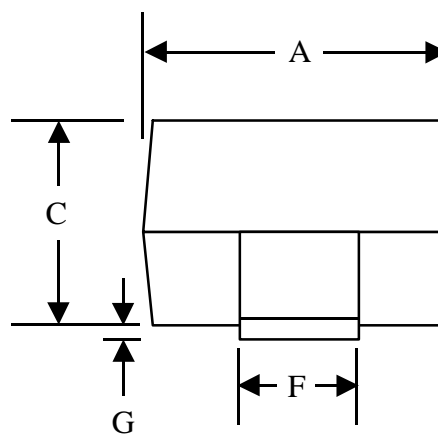
# SOD-123 PACKAGE

PACKAGE CODE = (D6)  
Fairchild Semiconductor's Criteria

Corrected March 11, 1998



Actual Size DIM	MIN (mils)	MAX (mils)	MIN (mm)	MAX (mm)
A	55	71	1.400	1.800
B	100	112	2.550	2.850
C	34.6	46	0.880	1.180
D	141.7	153.5	3.600	3.900
E	----	----	-----	-----
F	21.5	27.5	0.546	0.70
G	0.5	4	0.0135	0.1015
H	12.7	----	0.322	-----
I	3.7	7.7	0.095	0.195



SOD-123 LAND PADS

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FACT Quiet Series™	Quiet Series™	
FAST®	SuperSOT™-3	
FASTr™	SuperSOT™-6	
GTO™	SuperSOT™-8	
HiSeC™	TinyLogic™	

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