FAIRCHILD
SEMICONDUCTOR®

MMSZ4689

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
- 500mW rating on FR-4 or FR-5 board.
- Class 3 ESD rating (>16kV) per Human Body Model

Ordering

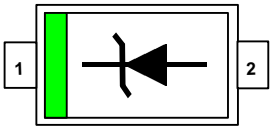
- 7 inch reel (178mm); 8mm Tape; 3,000 units per reel.

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

Symbol	Parameter	Value	Units
T_{STG}	Storage Temperature	-55 ~ 150	°C
T_J	Maximum Junction Temperature	-55 ~ 150	°C
P_D	Total Power Dissipation at 25°C Derate above 25°C	500 6.7	mW mW/°C
R_{QJA}	Thermal Resistance Junction to Ambient	340	°C/W
R_{QJL}	Thermal Resistance Junction to Lead	150	°C/W
ΔV_Z	Maximum Voltage Change (note 2)	970	mV
Lead Solder Temperature (Max 10 second duration)		260	°C
Nominal Zener Voltage (V_Z) at 50µA		5.1	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_Z at 100µA and V_Z at 10µA.

Top Mark: CU
1: Cathode
2: Anode



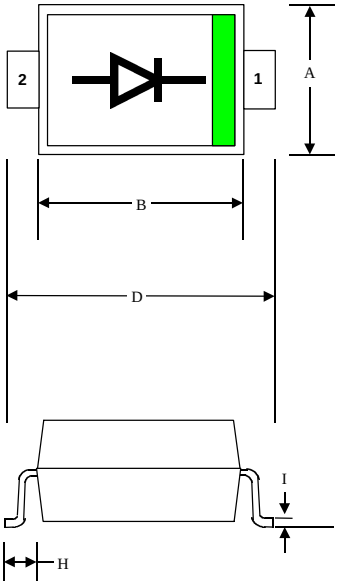
Electrical Characteristics T_A=25°C unless otherwise noted

Symbol	Characteristics	Test Conditions	Min.	Max.	Units
V_Z	Zener Voltage	I_{ZT} = 50µA D.C	4.85	5.36	V
I_R	Reverse Leakage	V_R = 3.0V		10	µA
V_F	Forward Voltage	I_F = 10mA		900	mV
ΔV_Z	Delta Zener Voltage (Note 2)	I_{ZT} = 100µA to 10µA		970	mV

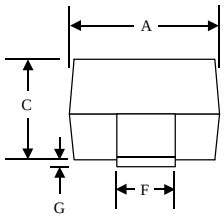
SOD-123 PACKAGE

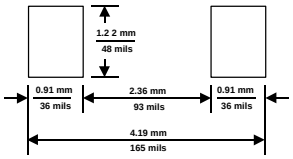
PACKAGE CODE = (D6)
Fairchild Semiconductor's Criteria

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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CROSSVOLT™	FRFET™	MicroPak™	QFET®	SuperSOT™-8
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Datasheet Identification	Product Status	Definition
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