



MMSD4148

General Description:

The high breakdown voltage, fast switching speed and high forward conductance of this diode packaged in a SOD-123 Surface Mount package makes it desirable also as a general purpose diode.

Features:

- Compact surface mount with same footprint as mini-melf.
- 400 milliwatt Power Dissipation package.
- High Breakdown Voltage, Fast Switching Speed.
- Typical capacitance less than 1.5 picofarad.

Ordering:

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

High Conductance Fast Diode

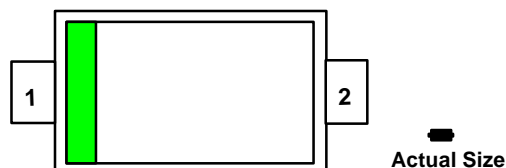
Absolute Maximum Ratings* TA = 25°C unless otherwise noted

Sym	Parameter	Value	Units
T_{stg}	Storage Temperature	-55 to +150	°C
T_J	Operating Junction Temperature	-55 to +150	°C
P_D	Total Power Dissipation at $T_A = 25^\circ\text{C}$	400	W
	Linear Derating Factor from $T_A = 25^\circ\text{C}$	3.2	mW/°C
$R_{\theta JA}$	Thermal Resistance Junction-to-Ambient	312	°C/W
W_{iv}	Working Inverse Voltage	75	V
I_O	Average Rectified Current	200	mA
I_F	DC Forward Current (IF)	600	mA
$i_{F(surge)}$	Peak Forward Surge Current (IFSM) Pulse Width = 1.0 Second	1.0	Amp
	Pulse Width = 1.0 microsecond	2.0	Amp

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

ELECTRICALLY THE SAME AS
THE FDLL4148 DEVICE. SOURCED
FROM THE 1P PRODUCT.

Top Mark: 5H



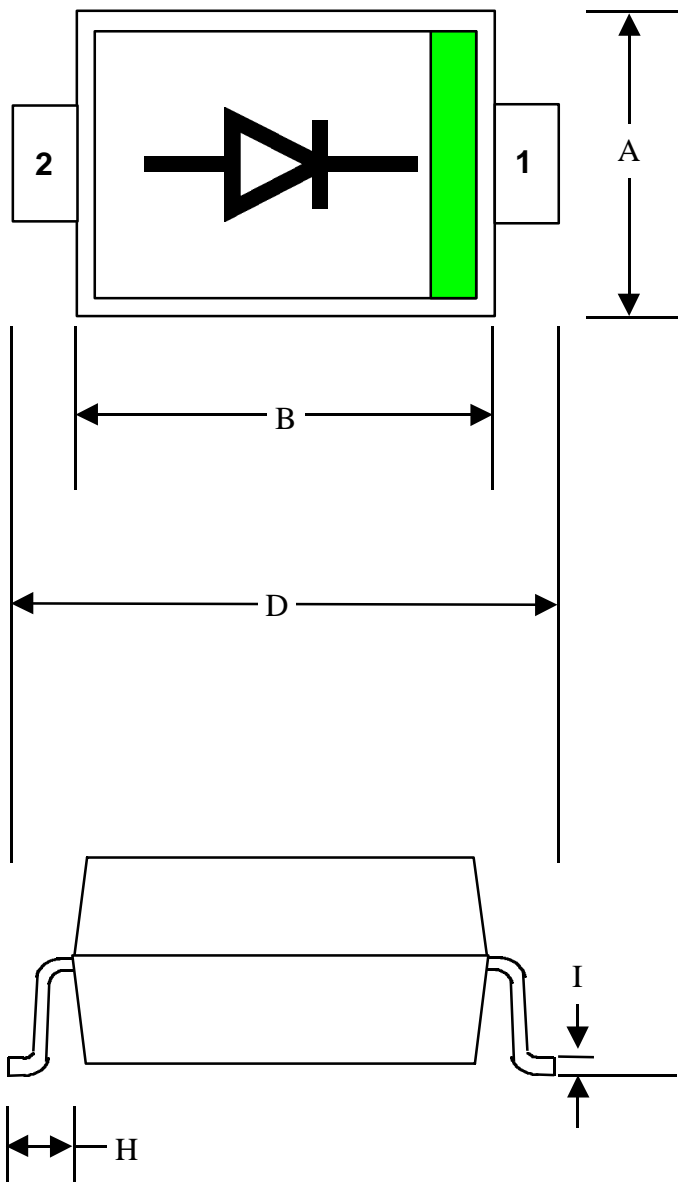
Electrical Characteristics

TA = 25°C unless otherwise noted

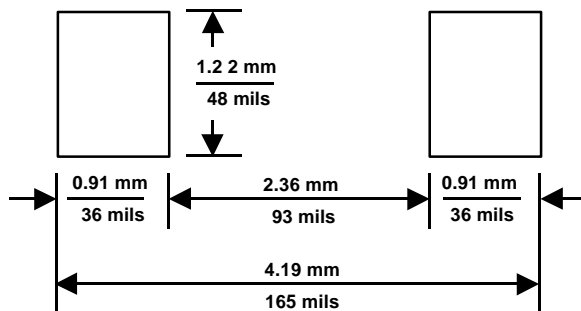
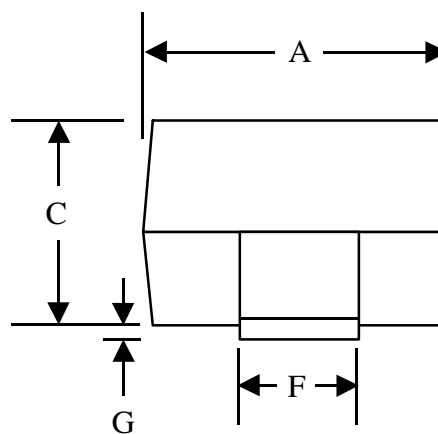
SYM	CHARACTERISTICS	MIN	MAX	UNITS	TEST CONDITIONS
B_V	Breakdown Voltage	100 75		V V	$I_R = 100 \mu\text{A}$ $I_R = 5.0 \mu\text{A}$
I_R	Reverse Leakage		25 50 5.0	nA uA uA	$V_R = 20 \text{ V}$ $V_R = 20 \text{ V } T_A = 150^\circ\text{C}$ $V_R = 75 \text{ V}$
V_F	Forward Voltage		1.0	V	$I_F = 10 \text{ mA}$
C_T	Capacitance		4.0	pF	$V_R = 0.0 \text{ V}, f = 1.0 \text{ MHz}$
T_{RR}	Reverse Recovery Time		4.0	ns	$I_F = 10 \text{ mA } V_R = 6.0 \text{ V}$ $I_{RR} = 1.0 \text{ mA}$ $R_L = 100 \text{ Ohms}$

SOD-123 PACKAGE

PACKAGE CODE = (D6)
Fairchild Semiconductor's Criteria



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	35	46	0.880	1.180
D	142	154	3.600	3.900
E	----	----	-----	-----
F	21	28	0.546	0.70
G	0.5	4	0.0135	0.1015
H	13	----	0.322	-----
I	4	8	0.095	0.195



SOD-123 LAND PADS

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PRODUCT STATUS DEFINITIONS

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Datasheet Identification	Product Status	Definition
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