

# MMSD914

**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

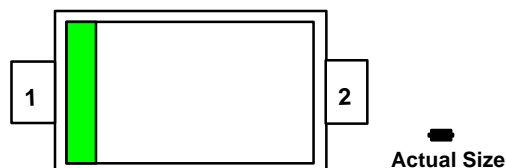
**Absolute Maximum Ratings\*** TA = 25°C unless otherwise noted

Sym	Parameter	Value	Units
T <sub>stg</sub>	Storage Temperature	-55 to +150	°C
T <sub>J</sub>	Operating Junction Temperature	-55 to +150	°C
P <sub>D</sub>	Total Power Dissipation at T <sub>A</sub> = 25°C	400	W
	Linear Derating Factor from T <sub>A</sub> = 25°C	3.2	mW/°C
R <sub>OJA</sub>	Thermal Resistance Junction-to-Ambient	312	°C/W
W <sub>IV</sub>	Working Inverse Voltage	75	V
I <sub>O</sub>	Average Rectified Current	200	mA
I <sub>F</sub>	DC Forward Current (IF)	600	mA
i <sub>F(surge)</sub>	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 FDLL914 DEVICE. SOURCED FROM THE 1P PRODUCT.

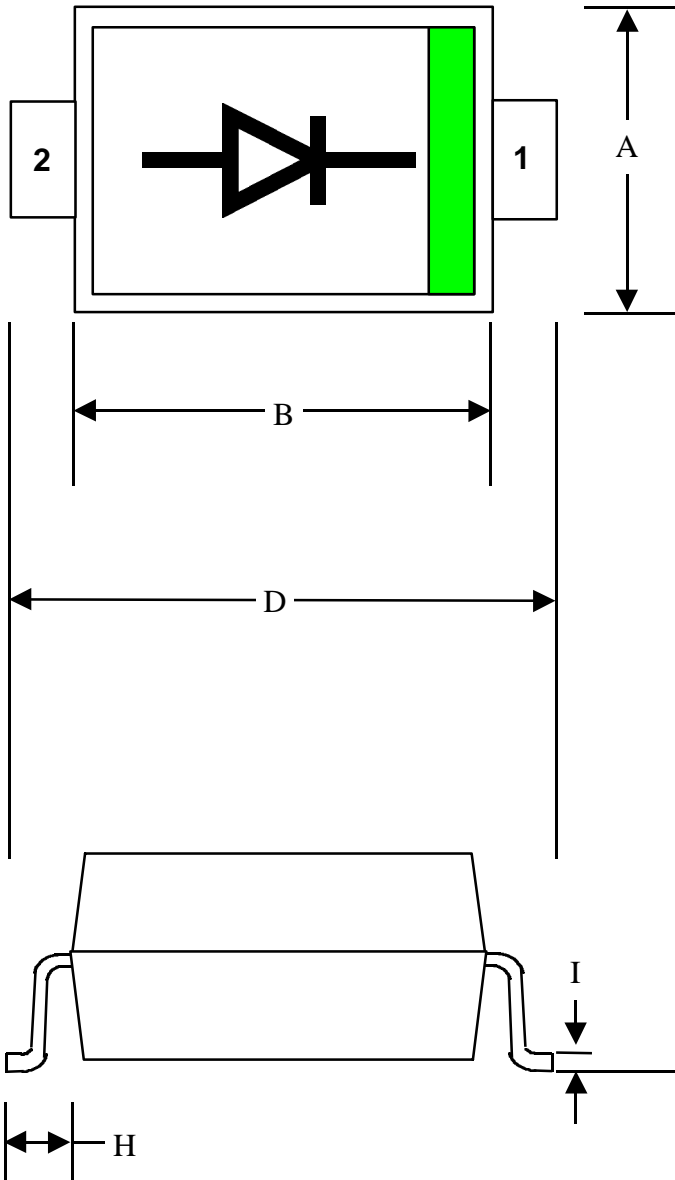
Top Mark: 5D



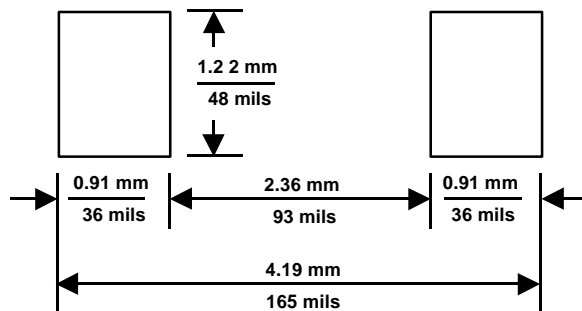
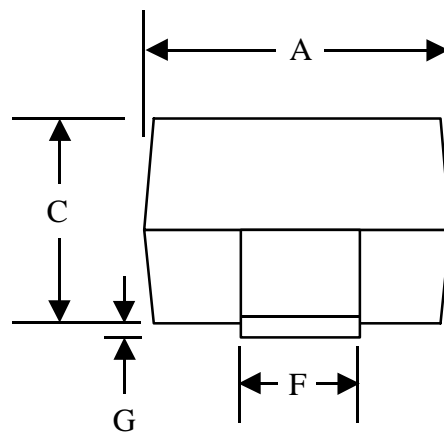
**Electrical Characteristics** TA = 25°C unless otherwise noted

SYM	CHARACTERISTICS	MIN	MAX	UNITS	TEST CONDITIONS
B <sub>V</sub>	Breakdown Voltage	100		V	I <sub>R</sub> = 100 uA
		75		V	I <sub>R</sub> = 5.0 uA
I <sub>R</sub>	Reverse Leakage		25	nA	V <sub>R</sub> = 20 V
			50	uA	V <sub>R</sub> = 20 V T <sub>A</sub> = 150°C
			5.0	uA	V <sub>R</sub> = 75 V
V <sub>F</sub>	Forward Voltage		1.0	V	I <sub>F</sub> = 10 mA
C <sub>T</sub>	Capacitance		4.0	pF	V <sub>R</sub> = 0.0 V, f = 1.0 MHz
T <sub>RR</sub>	Reverse Recovery Time		4.0	ns	I <sub>F</sub> = 10 mA V <sub>R</sub> = 6.0 V I <sub>RR</sub> = 1.0 mA R <sub>L</sub> = 100 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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E <sup>2</sup> CMOS™	PowerTrench™	
FACT™	QST™	
FACT Quiet Series™	Quiet Series™	
FAST®	SuperSOT™-3	
FASTr™	SuperSOT™-6	
GTO™	SuperSOT™-8	
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No Identification Needed	Full Production	This datasheet contains final specifications. Fairchild Semiconductor reserves the right to make changes at any time without notice in order to improve design.
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