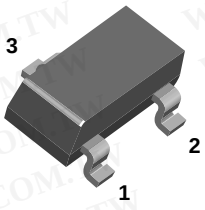
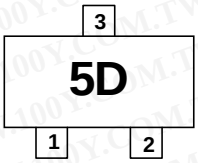
FAIRCHILD SEMICONDUCTOR®

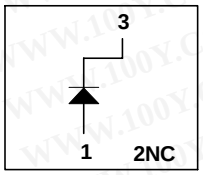
MMBD914



SOT-23



Connection Diagram



Small Signal Diode

Absolute Maximum Ratings*

T_A = 25°C unless otherwise noted

Symbol	Parameter	Value	Units
V_{RRM}	Maximum Repetitive Reverse Voltage	100	V
$I_{F(AV)}$	Average Rectified Forward Current	200	mA
I_{FSM}	Non-repetitive Peak Forward Surge Current Pulse Width = 1.0 second Pulse Width = 1.0 microsecond	 1.0 2.0	 A A
T_{stg}	Storage Temperature Range	-55 to +150	°C
T_J	Operating Junction Temperature	150	°C

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

NOTES:

1) These ratings are based on a maximum junction temperature of 150 degrees C.

2) These are steady state limits. The factory should be consulted on applications involving pulsed or low duty cycle operations.

Thermal Characteristics

Symbol	Parameter	Value	Units
P_D	Power Dissipation	350	mW
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	357	°C/W

Electrical Characteristics

T_A = 25°C unless otherwise noted

Symbol	Parameter	Test Conditions	Min	Max	Units
V_R	Breakdown Voltage	I_R = 5.0 µA I_R = 100 µA	75 100		V V
V_F	Forward Voltage	I_F = 10 mA		1.0	V
I_R	Reverse Current	V_R = 20 V V_R = 20 V, T_A = 150°C V_R = 75 V		25 50 5.0	nA µA µA
C_T	Total Capacitance	V_R = 0, f = 1.0 MHz		4.0	pF
t_{rr}	Reverse Recovery Time	I_F = 10 mA, V_R = 6.0V, I_{RR} = 1.0 mA, R_L = 100 Ω		4.0	ns
V_{FR}	Peak Forward Recovery Voltage	I_F = 50 mA PEAK SQUARE WAVE PULSE WIDTH = 0.1 µS 5 kHz – 100 kHz REP RATE		2.5	V

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2. A critical component is any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.

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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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