



FUKUCOM COMPANY LTD.

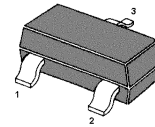
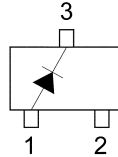
福 靈 有 限 公 司

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MMBD914

High-Speed Switching Diode



1. ANODE 3. CATHODE
Marking Code: **5D**

SOT-23 Plastic Package

Absolute Maximum Ratings ($T_a = 25\text{ }^\circ\text{C}$)

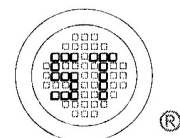
Parameter	Symbol	Value	Unit
Reverse Voltage	V_R	100	V
Forward Current	I_F	200	mA
Peak Forward Surge Current	$I_{FM(surge)}$	500	mA
Total Device Dissipation FR-5 Board ¹⁾ $T_A=25\text{ }^\circ\text{C}$ Derate above $25\text{ }^\circ\text{C}$	P_D	225 1.8	mW mW/°C
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	556	°C/W
Total Device Dissipation Alumina Substrate ²⁾ $T_A=25\text{ }^\circ\text{C}$ Derate above $25\text{ }^\circ\text{C}$	P_D	300 2.4	mW mW/°C
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	417	°C/W
Junction and Storage Temperature Range	T_J, T_S	-55 to +150	°C

¹⁾ FR-5=1 X 0.75 X 0.062 in.

²⁾ Alumina=0.4 X 0.3 X 0.024 in. 99.5% alumina.

Characteristics at $T_j = 25\text{ }^\circ\text{C}$

Parameter	Symbol	Min.	Max.	Unit
Forward Voltage at $I_F=10\text{mA}$	V_F	-	1	V
Reverse Breakdown Voltage at $I_R=100\mu\text{A}$	$V_{(BR)}$	100	-	V
Reverse Voltage Leakage Current at $V_R=20\text{V}$ at $V_R=75\text{V}$	I_R	- -	25 5	nA μA
Reverse Recovery Time at $I_F=I_R=10\text{mA}$	t_{rr}	-	4	ns
Diode Capacitance at $f=1\text{MHz}$	C_T	-	4	pF



SEMTECH

Dated : 19/10/2005