

SURFACE MOUNT FAST SWITCHING DIODE	REVERSE VOLTAGE – 75 Volts FORWARD CURRENT – 0.15 Ampere
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<p>FEATURES</p> <ul style="list-style-type: none"> • Fast switching speed • Ideally suited for automatic insertion • For general purpose switching applications <p>MECHANICAL DATA</p> <ul style="list-style-type: none"> • Case: SOD-323 Plastic • Case material: “Green” molding compound, UL flammability classification 94V-0, (No Br. Sb. Cl) • Moisture sensitivity: Level 1 per J-STD-020D • Lead free in RoHS 2002/95/EC compliant

SOD-323		
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Dim.	Min.	Max.
A	2.50	2.70
B	1.20	1.40
C	1.60	1.80
D	0.25	0.35
E	0.08	0.15
F	0.25	0.40
G	---	1.0
H	0.00	0.10
Dimensions in millimeter		

Maximum Ratings & Thermal Characteristics @ T_A = 25°C unless otherwise specified

Characteristic	Symbol	1N4148WS	Units
Non-Repetitive Peak Reverse Voltage	V_{RM}	100	V
Repetitive Peak Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	75	V
Non-repetitive Peak Forward Surge Current	I_{FM}	500	mA
Peak Forward Surge Current	I_{FSM}	2 1	A
Power Dissipation *T _a =25°C	P_D	200	mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	635	°C/W
Operating Temperature Range	T_J	-55~+150	°C
Storage Temperature Range	T_{STG}	-65~+150	°C

Electrical Characteristics @ T_A = 25°C unless otherwise specified

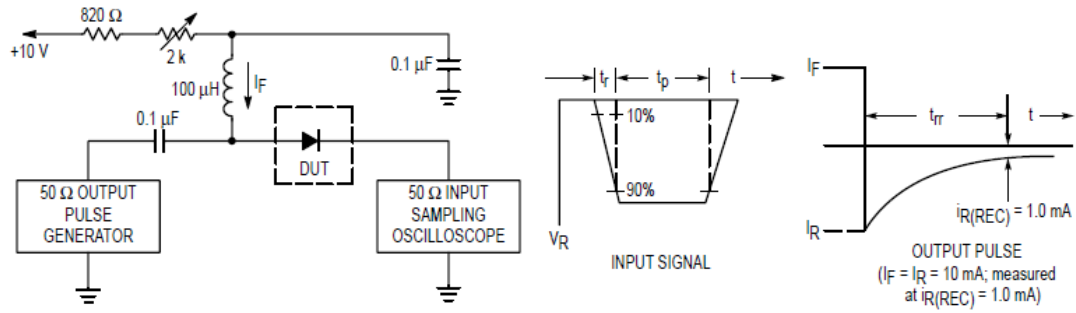
Characteristic	Test Condition	Symbol	1N4148WS	Unit
Maximum Forward Voltage	$I_F = 10mA$	V_F	1000	mV
Maximum DC Reverse Current at Rated DC Blocking Voltage	$V_R = 75V$ $V_R = 20V$	I_R	5 25	uA nA
Typical Diode Capacitance	$V_R = 0V, f = 1MHz$	C_D	4	pF
Reverse Recovery time	$I_R = I_F = 10mA$ (Figure 1)	trr	4	ns

* FR-4 Minimum Pad.

RATING AND CHARACTERISTIC CURVES



Fig.1 Recovery Time Equivalent Test Circuit



- Notes: 1. A 2.0 kΩ variable resistor adjusted for a Forward Current (I_F) of 10mA.
- 2. Input pulse is adjusted so $I_{R(PEAK)}$ is equal to 10mA.
- 3. $t_p \gg t_r$

Fig.2 Typical Forward Characteristics

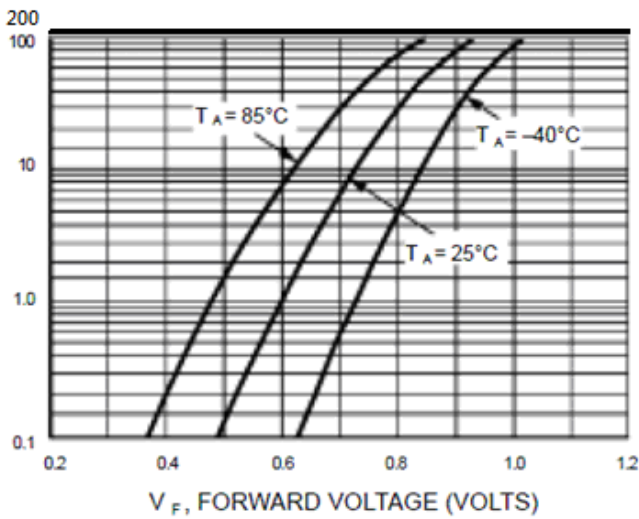


Fig.3 Typical Reverse Characteristics

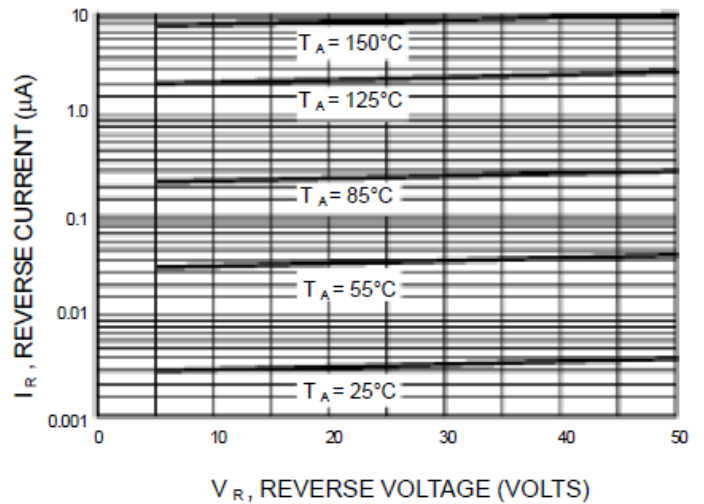
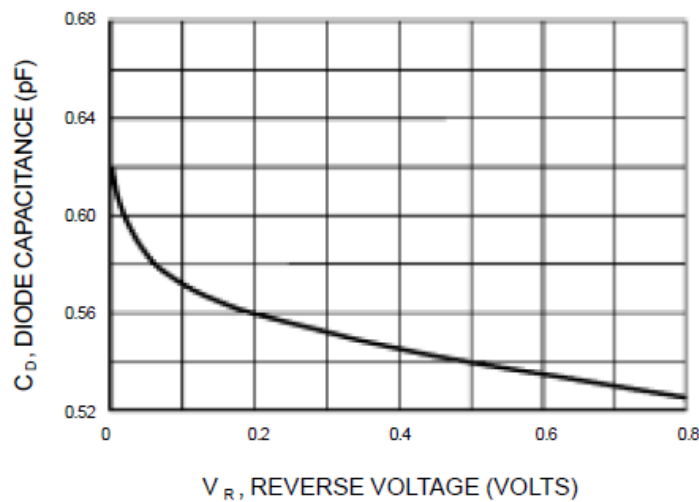


Fig.4 Typical Capacitance Characteristics



1N4148WS

Device Marking :

Device P/N	Marking code	Equivalent Circuit Diagram
1N4148WS	5D	1 2

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