

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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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 _{θJA}	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

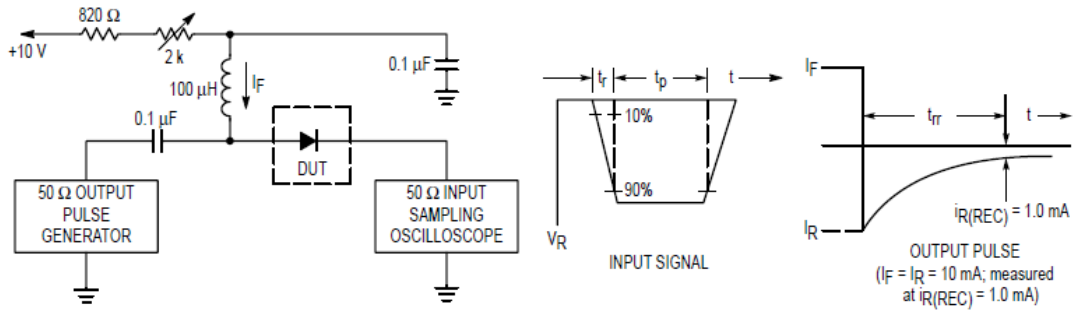
Characteristic	Test Condition	Symbol	1N4148WS	Unit
Maximum Forward Voltage	I _F = 10mA	V _F	1000	mV
Maximum DC Reverse Current at Rated DC Blocking Voltage	V _R = 75V V _R = 20V	I _R	5 25	uA nA
Typical Diode Capacitance	V _R =0V, f=1MHz	C _D	4	pF
Reverse Recovery time	I _R =I _F =10mA (Figure1)	trr	4	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

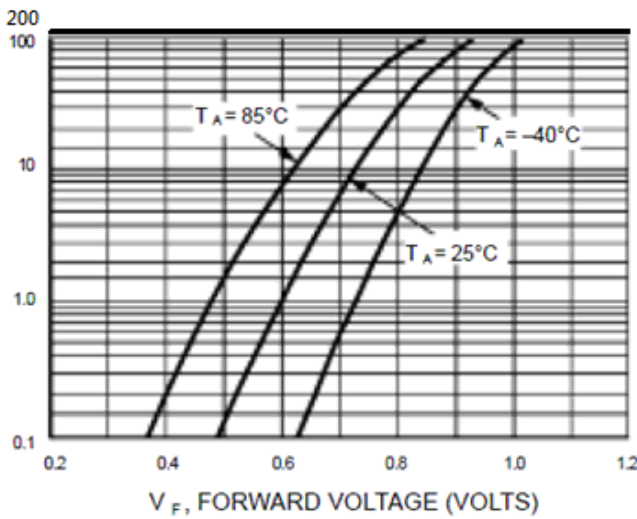


Fig.3 Typical Reverse Characteristics

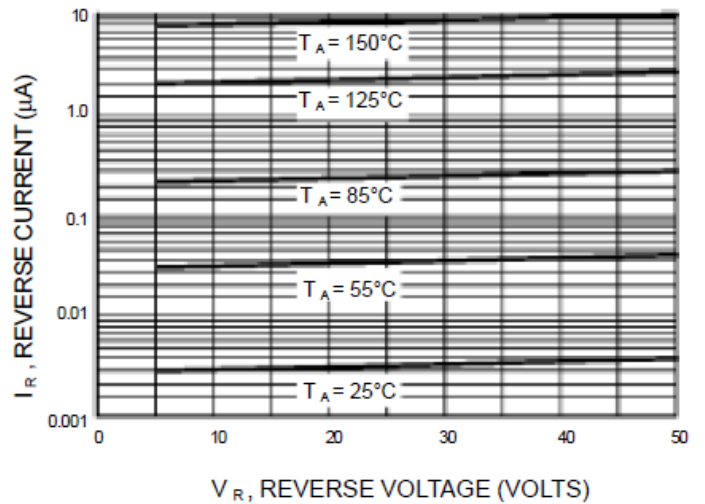
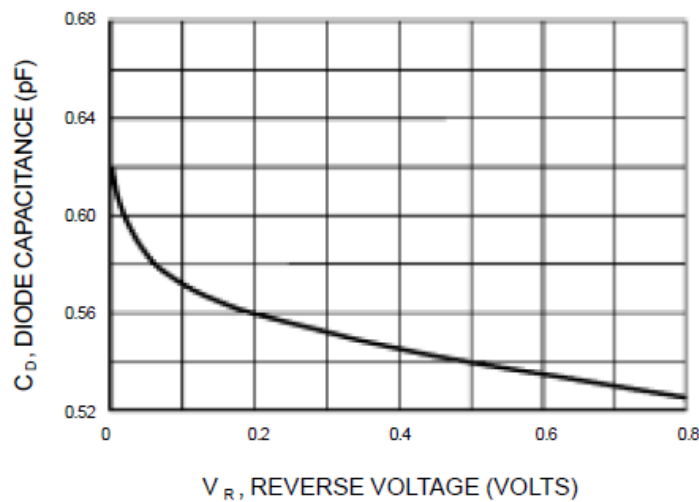


Fig.4 Typical Capacitance Characteristics



1N4148WS

Device Marking :

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

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