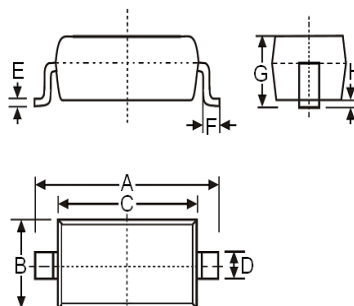


**SURFACE MOUNT
FAST SWITCHING DIODE**
**REVERSE VOLTAGE – 75 Volts
FORWARD CURRENT – 0.15 Ampere**
FEATURES

- Fast switching speed
- Ideally suited for automatic insertion
- For general purpose switching applications

MECHANICAL DATA

- 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


SOD-323		
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 @ $T_A = 25^\circ\text{C}$ unless otherwise specified

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

Electrical Characteristics @ $T_A = 25^\circ\text{C}$ unless otherwise specified

Characteristic	Test Condition	Symbol	1N4148WS	Unit
Maximum Forward Voltage	$I_F = 10\text{mA}$	V_F	1000	mV
Maximum DC Reverse Current at Rated DC Blocking Voltage	$V_R = 75\text{V}$ $V_R = 20\text{V}$	I_R	5 25	μA nA
Typical Diode Capacitance	$V_R = 0\text{V}, f = 1\text{MHz}$	C_D	4	pF
Reverse Recovery time	$I_R = I_F = 10\text{mA}$ (Figure1)	t_{rr}	4	ns

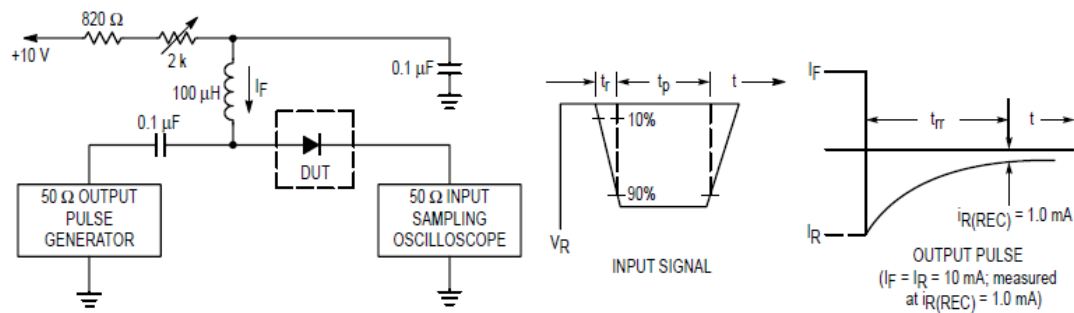
* FR-4 Minimum Pad.

REV.3, Aug-2017, KSYR94

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

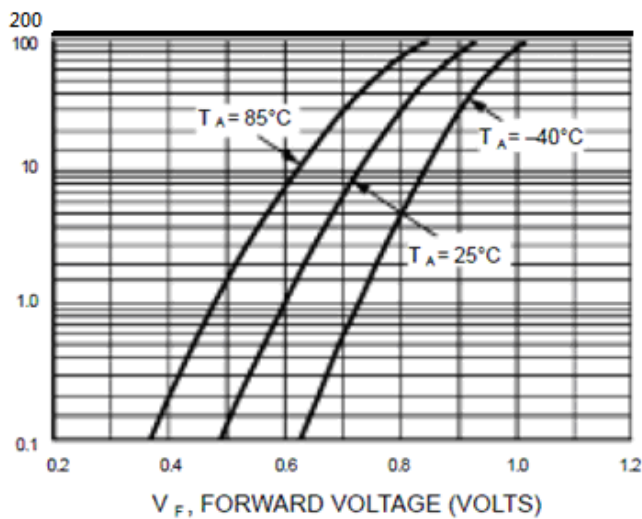


Fig.3 Typical Reverse Characteristics

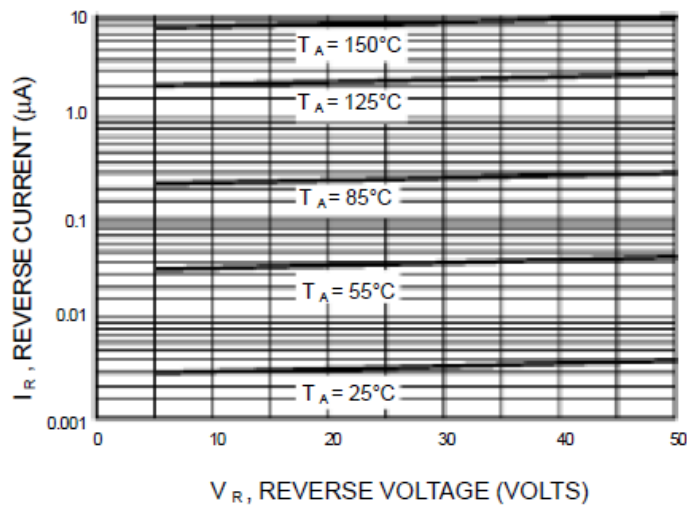
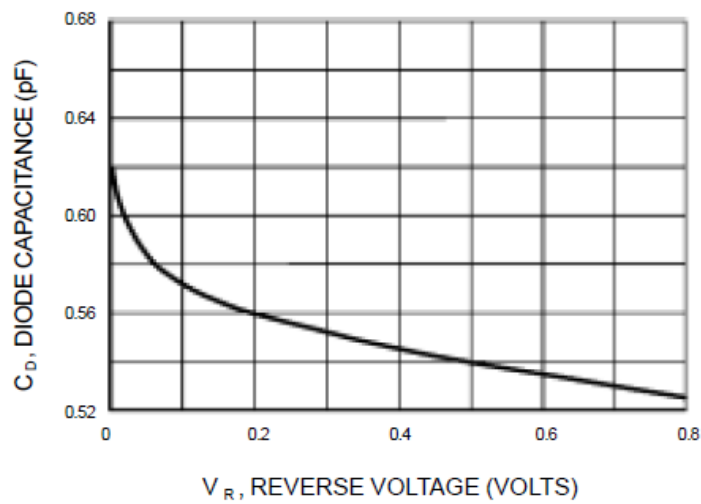


Fig.4 Typical Capacitance Characteristics



1N4148WS

Device Marking :

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

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