

SOD323F Small Signal Diode

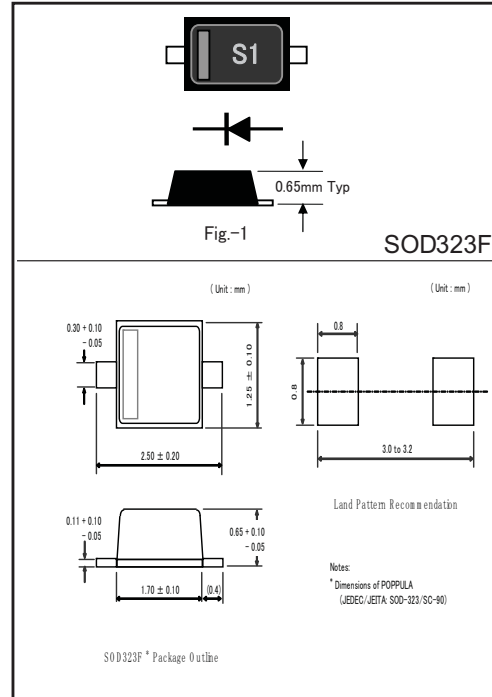
FEATURES

General purpose diodes
Fast switching devices
SOD323F Thin SMD package (Fig-1)
RoHS compliant / Green EMC
Matte Tin (Sn) Lead finish
Moisture Level Sensitivity 1
Cathode Band / Device marking

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.

Device Marking Code	
1N4148WS	S1
1N4448WS	S2
1N914BWS	S3



Absolute Maximum Ratings (Ta = 25 °C)

Symbol	Parameter	Value	Units
V_{RSM}	Non-Repetitive Peak Reverse Voltage	100	V
V_{RRM}	Repetitive Peak Reverse Voltage	75	V
I_{FRM}	Repetitive Peak Forward Current	300	mA
I_{FSM}	Non-Repetitive Peak Forward Current *1	2	A
I^2T	Typical Current Squared Time	0.02	A ² S
I_O	Continuous Forward Current	150	mA
P_D	Power Dissipation	200	mW
T_J	Junction Temperature	150	°C
T_{STG}	Storage Temperature	-55 to +150	°C

*1 Pulse width = 1 μs

Electrical Characteristics (Ta = 25 °C)

Symbol	Parameter	Conditions	Min	Max	Units
BV_R	Breakdown Voltage	$I_R = 100 \mu A$	100		V
		$I_R = 5 \mu A$	75		V
I_R	Reverse Current	$V_R = 20V$		25	nA
		$V_R = 75V$		5	μA
V_F	Forward Voltage	$I_F = 5mA$ *2	0.62	0.72	V
		$I_F = 10mA$		1	V
		$I_F = 100mA$ *2		1	V
C	Capacitance	$V_R = 0V, f = 1MHz$		4	pF
T_{RR}	Reverse Recovery Time	$I_F = 10mA, V_R = 6V$ $I_{RR} = 1mA, R_L = 100 \Omega$		4	ns

*2 Excluded 1N4148WS

RATING AND CHARACTERISTICS CURVES (1N4148WS,1N4448WS,1N914BWS)

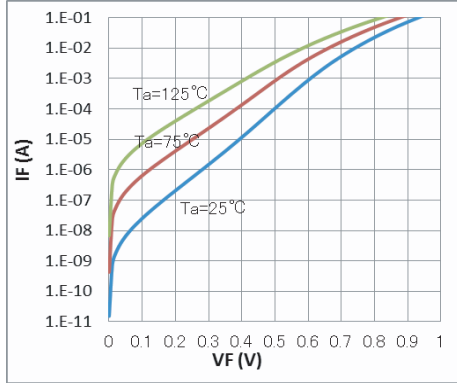


Fig.2 Forward current(IF) vs Forward voltage(VF)

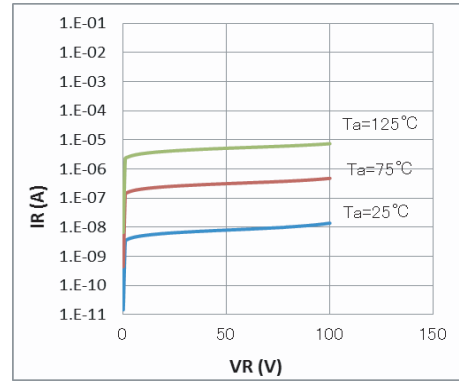


Fig.3 Reverse current(IR) vs Reverse voltage(VR)

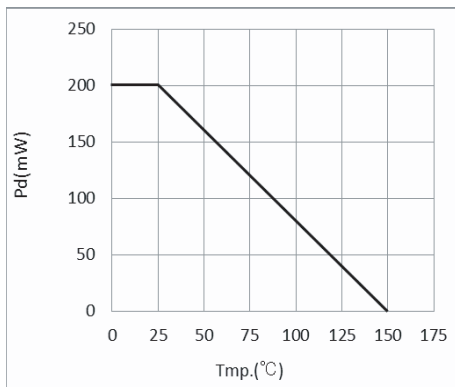


Fig.4 Power Derating Curve

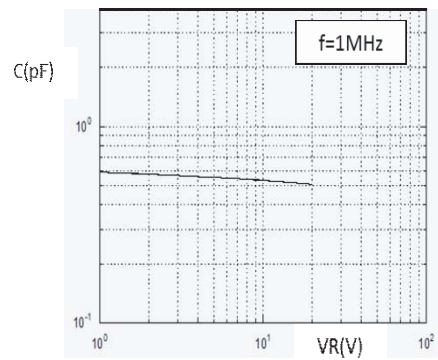


Fig.5 Capacitance vs Reverse voltage(VR)

PACKAGING OF DIODE AND BRIDGE RECTIFIERS

REEL PACK

Device	Package	Shipping	Tape wide	Emboss pitch	Tape specification	Notes
1N4148WS	SOD323F	Tape & Reel 3000pcs /7" Reel	8 mm	4 mm	Conductive	

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