

# 1N4148FL

## HIGH-SPEED SWITCHING DIODE

Forward Current-150mA

Reverse Voltage-100V

### FEATURES

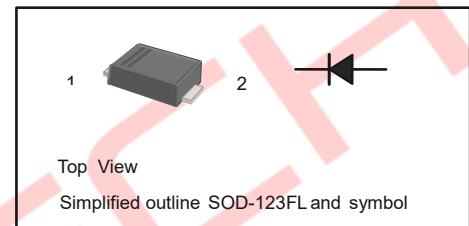
- ◆ For surface mount applications
- ◆ Glass passivated chip junction
- ◆ Fast reverse recovery time
- ◆ Ideal for automated placement
- ◆ Lead free in comply with EU RoHS 2011/65/EU directives

### MECHANICAL DATA

- ◆ Case: SOD-123FL molded plastic body
- ◆ Terminals: Solderable per MIL-STD-750, Method 2026
- ◆ Weight: Approximated 0.015 grams

### PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derating by 20 %

PARAMETER	SYMBOL	1N4148FL	UNIT
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	100	V
Maximum RMS Voltage	$V_{RMS}$	75	V
Reverse Breakdown Voltage at $I_R=1\mu A$	$V_{(BR)R}$	75	V
Maximum Forward Current	$I_F$	150	mA
Peak Forward Surge Current (Note1)	$I_{FSM}$	4	A
Maximum Forward Voltage at 1 mA 10mA 50mA 150mA	$V_F$	0.715 0.855 1.00 1.25	V
Peak Reverse Current at $V_R=20V, T_J=25^\circ C$ $V_R=75V, T_J=25^\circ C$ $V_R=25V, T_J=150^\circ C$ $V_R=75V, T_J=150^\circ C$	$I_R$	0.025 1 30 50	$\mu A$
Typical Junction Capacitance (Note2)	$C_J$	5	pF
Typical Thermal Resistance (Note3)	$R_{\theta JA}$	90	$^\circ C/W$
Total Power Dissipation	$P_D$	400	mW
Maximum Reverse Recovery Time	$T_{rr}$	8	nS
Operating and Storage Temperature Range	$T_J, T_{STG}$	-55 to +150	$^\circ C$

Notes: 1. Measured at 8.3 ms single half sine wave superimposed on rated load (JEDEC Method).

2. Measured at 1MHz and applied reverse voltage of 4 V D.C.

3. P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas.

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## RATINGS AND CHARACTERISTIC CURVES

Fig.1 Forward Current Derating Curve

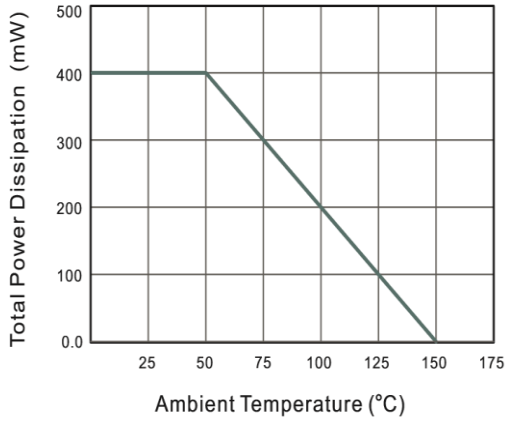


Fig.2 Typical Reverse Characteristics

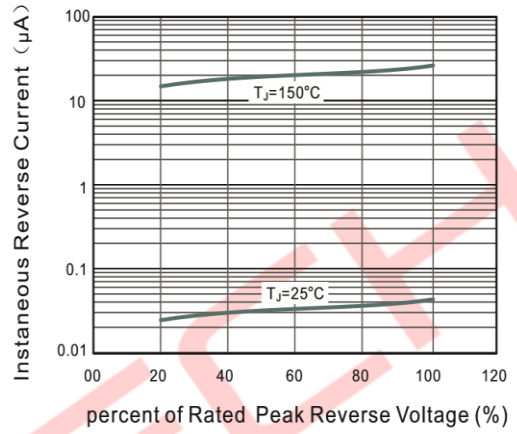


Fig.3 Typical Instantaneous Forward Characteristics

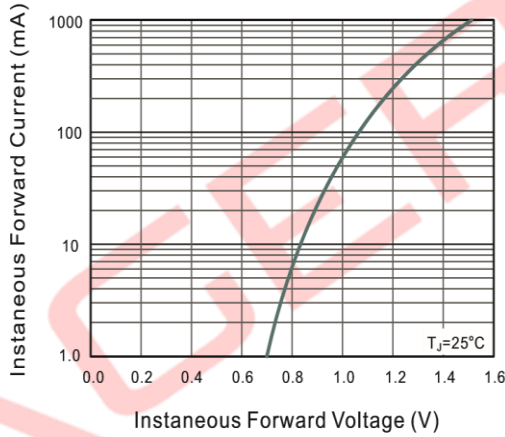
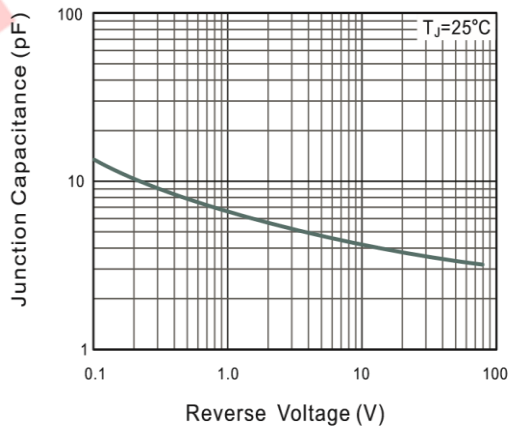


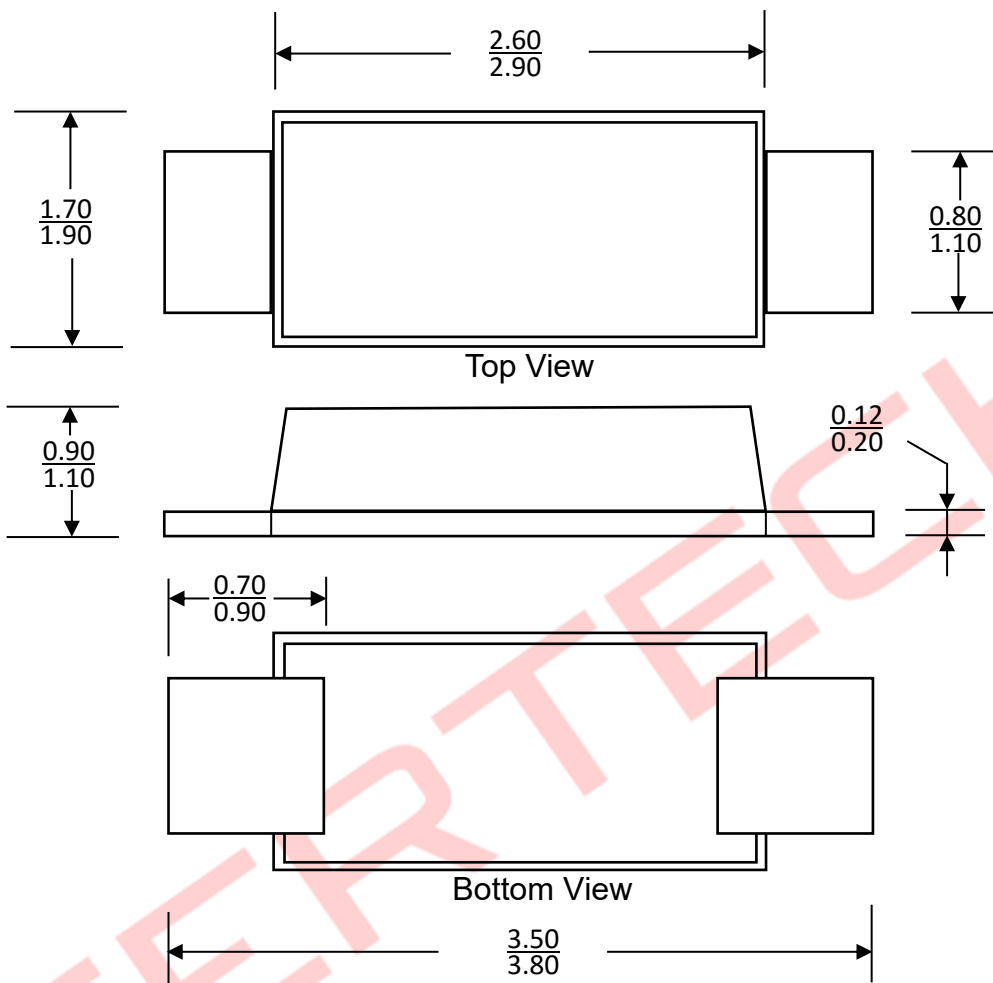
Fig.4 Typical Junction Capacitance



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## PACKAGE OUTLINE

SOD-123FL



Dimensions in millimeters

### ORDERING INFORMATION

Device	Package	Shipping
1N4148FL	SOD-123FL	3,000/Tape & Reel (7 inches)