

Features

- For surface mounted applications
- Low profile package
- Ideal for automated placement
- Reverse Voltage - 50 to 1000 V
- Forward Current - 1 A

Applications

- power supply
- LED driver
- Battery protector
- adapter
- Voltage protector



Absolute Maximum Ratings and Electrical characteristics

Ratings at ambient temperature unless otherwise specified. Single phase, half wave, 60Hz resistive or inductive load, for capacitive load, derate by 20 %

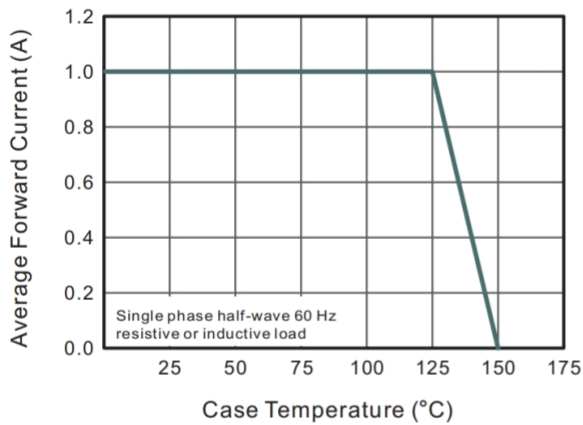
Parameter	Symbols	1N4007FL	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	1000	V
Maximum RMS voltage	V_{RMS}	700	V
Maximum DC Blocking Voltage	V_{DC}	1000	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	1.0	A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load	I_{FSM}	30	A
Max Instantaneous Forward Voltage at 1 A	V_F	1.1	V
Maximum DC Reverse Current at Rated DC Reverse Voltage	I_R	5.0 50	uA
	$T_a = 25^{\circ}C$ $T = 100^{\circ}C$		
Typical Junction Capacitance (1)	C_j	220(TYP.)	PF
Typical Thermal Resistance (2)	$R_{\theta JA}$	90	$^{\circ}C/W$
Operating Junction Temperature Range	T_j	-55 ~ +150	$^{\circ}C$
Storage Temperature Range	T_{stg}	-55 ~ +150	$^{\circ}C$

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

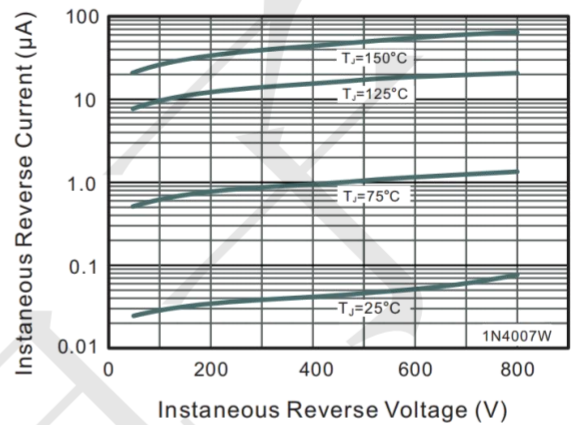
(2). P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas.

Typical Electrical Characteristic Curves

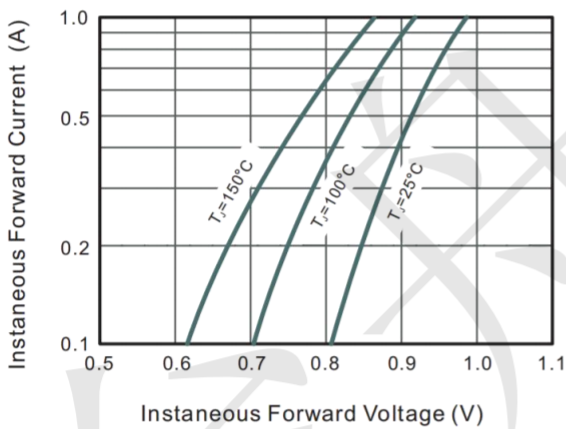
Forward Current Derating Curve



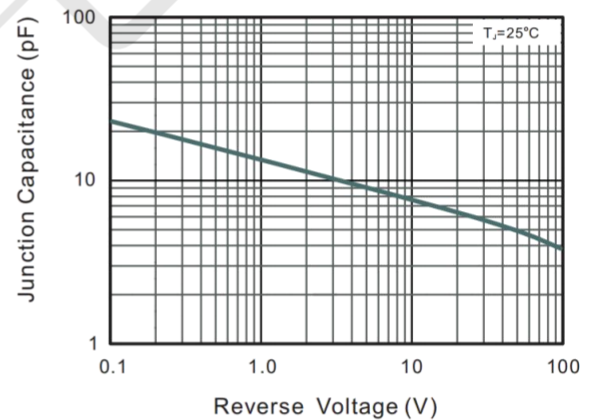
Typical Instaneous Reverse Characteristics



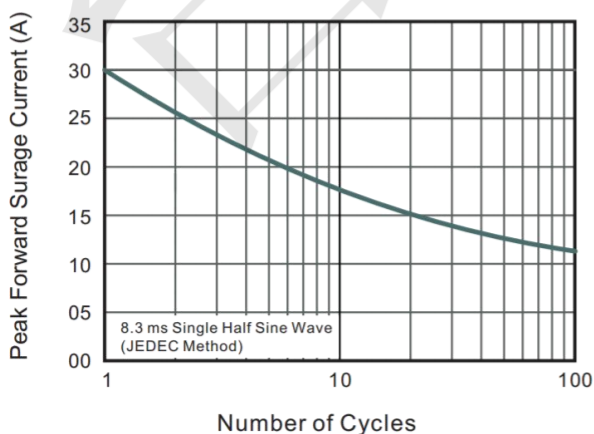
Typical Forward Characteristic



Typical Junction Capacitance

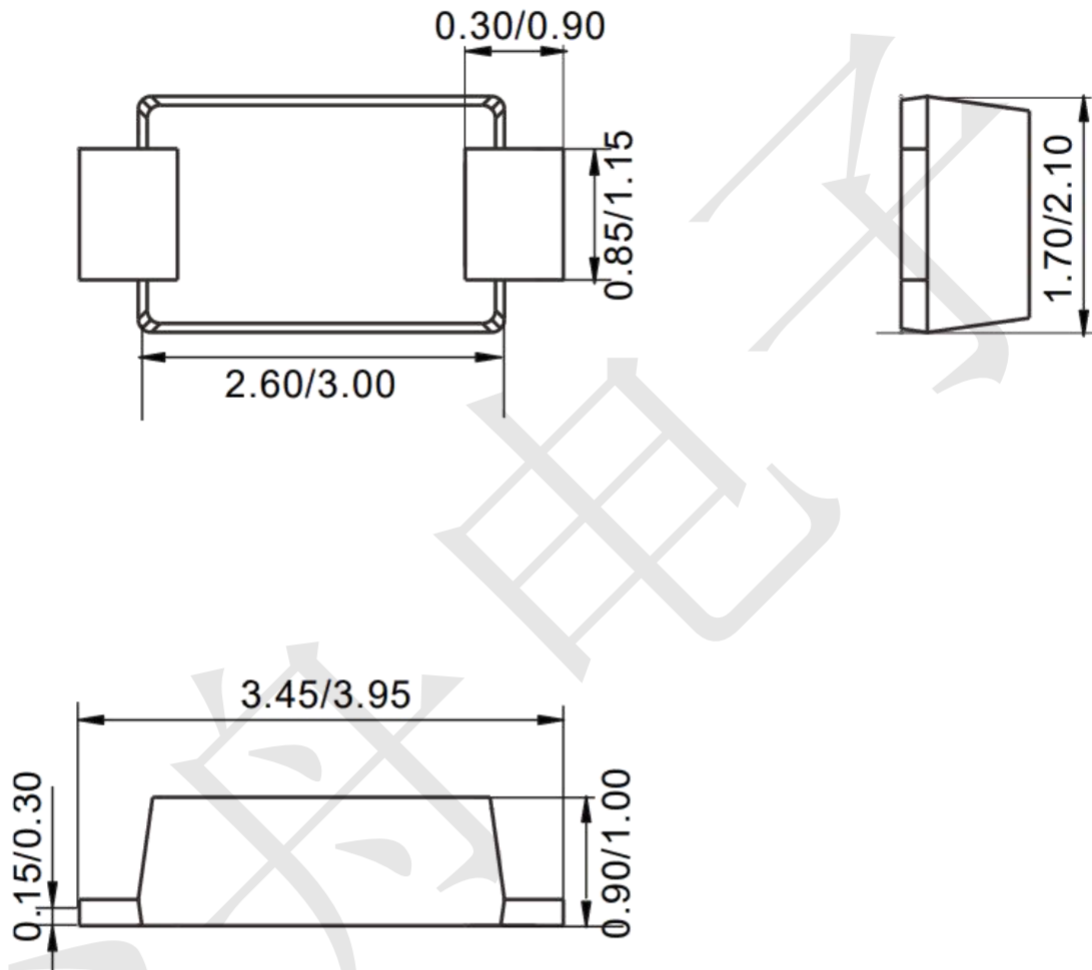


Maximum Non-Repetitive Peak Forward Surge Current



Package Outline Dimensions (unit: mm)

SOD-123FL



Mounting Pad Layout (unit: mm)

