SOCAY

Effective Super Fast Recovery Diodes

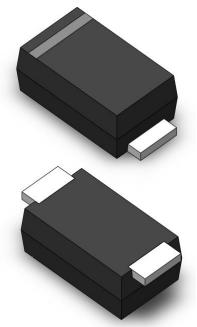
ES1001FL~ES1006FL **1A** **100 to 600V** **SOD-123FL**

Features

- Easy pick and place
- For surface mounted applications
- Low profile package
- Built-in strain relief
- Superfast recovery times for high efficiency

Mechanical Data

- Case: SOD-123FL
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight:15mg 0.00048oz



SOD-123FL

Maximum Ratings and Electrical Characteristics

Ratings at 25℃ ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Parameter	Symbol	ES1001FL	ES1002FL	ES1004FL	ES1006FL	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	100	200	400	600	V
Maximum RMS voltage	V_{RMS}	70	140	280	420	V
Maximum DC Blocking Voltage	V_{DC}	100	200	400	600	V
Maximum Average Forward Rectified Current at T_L = 100℃	$I_{F(AV)}$	1				A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	25				A
Maximum Forward Voltage at 1 A	V_F	1.0		1.25	1.7	V
Maximum DC Reverse Current at Rated DC Blocking Voltage — Ta =25℃	I_R	5				μA
Maximum DC Reverse Current at Rated DC Blocking Voltage — Ta =125℃	I_R	100				μA
Typical Junction Capacitance at V_R=4V, f=1MHz	C_J	10				pF
Maximum Reverse Recovery Time at I_F=0.5A, I_R=1A, I_{rr}=0.25A	t_{rr}	35				ns
Operating and Storage Temperature Range	T_J,T_{STG}	-55 ~ +150				℃

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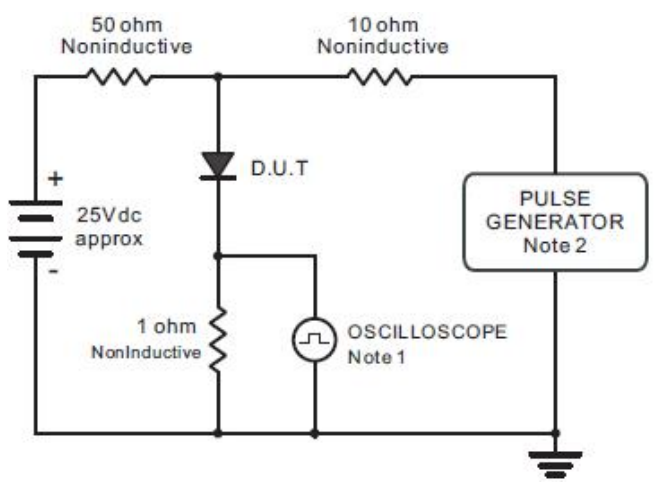
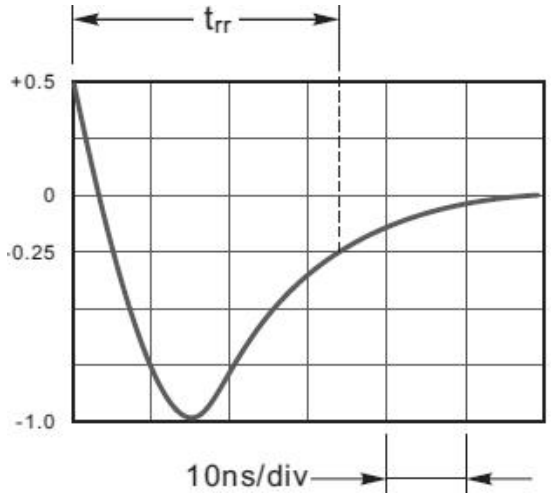
Characteristic Curves

Fig1. Reverse Recovery Time Characteristic And Test Circuit Diagram





Notes:

1. Rise Time=7ns max. Input Impedance=1.0MΩ,22pF.
2. Rise Time=10ns max. Source Impedance=50Ω.

Set Time Base for 10ns/div

Fig2. Maximum Average Forward Current Rating

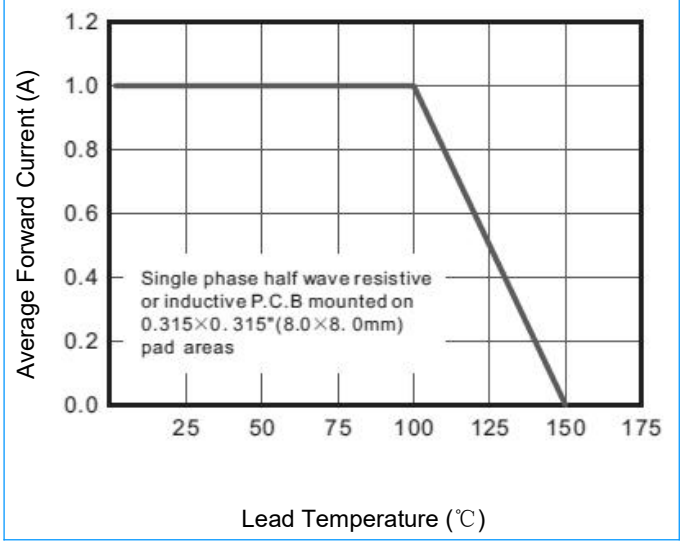
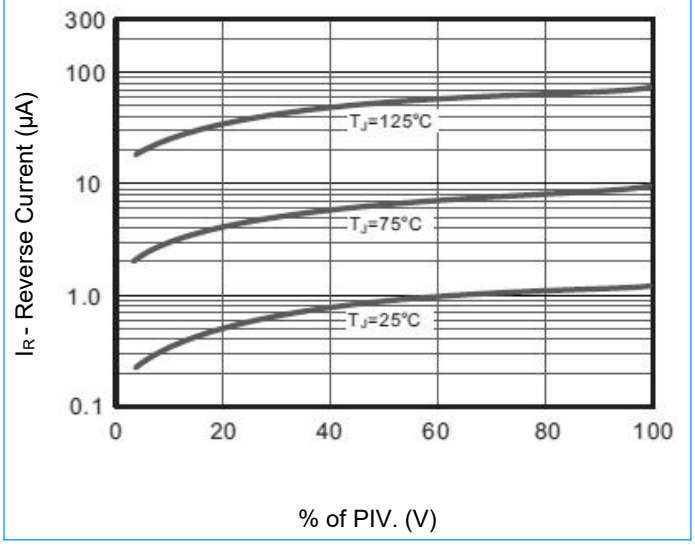


Fig3. Typical Reverse Characteristics



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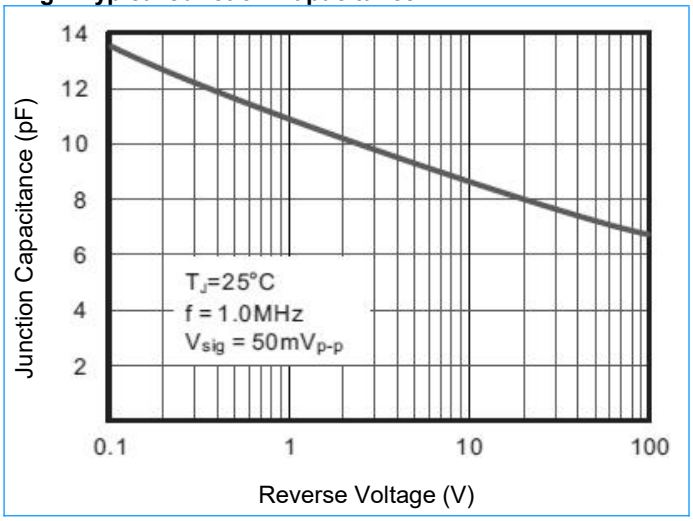
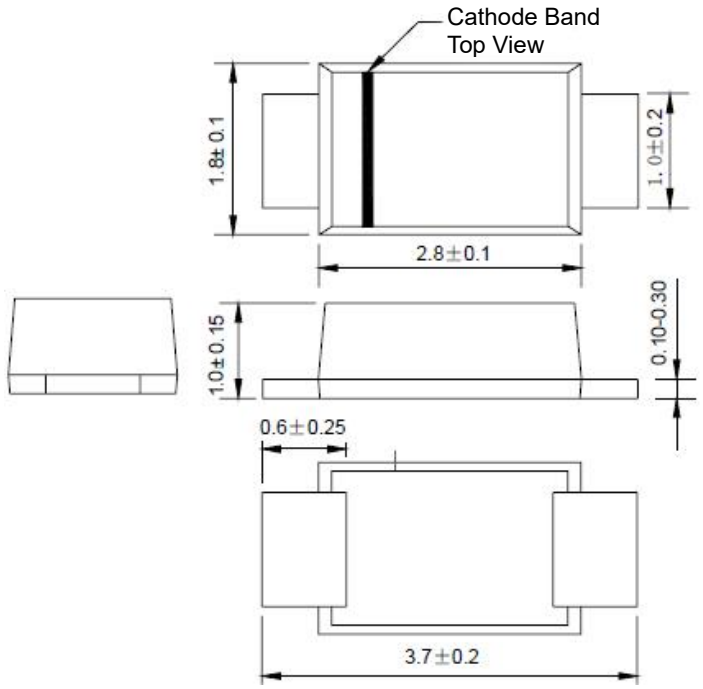
Characteristic Curves (Continue)

Fig4. Typical Junction Capacitance



SOD-123FL Package Outline (Unit: mm)



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Packaging Information

Part Number	Component Package	Quantity
ES1001FL~ES1006FL	SOD-123FL	3000 PCS/REEL

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