



Surface Mount Superfast Recovery Rectifier

Reverse Voltage – 50 to 600 V

Forward Current – 2 A

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

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Simplified outline SOD-123FL and symbol

Absolute Maximum Ratings and Characteristics

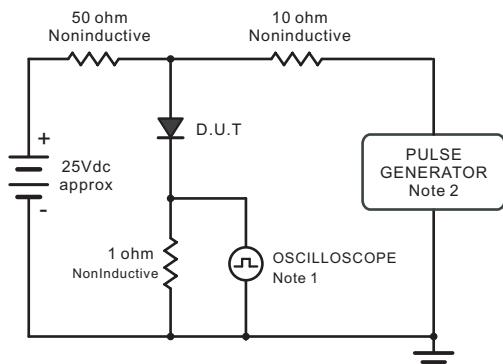
Ratings at 25 °C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Parameter	Symbols	ES2AW	ES2BW	ES2CW	ES2DW	ES2EW	ES2GW	ES2JW	Units		
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	50	100	150	200	300	400	600	V		
Maximum RMS voltage	V _{RMS}	35	70	105	140	210	280	420	V		
Maximum DC Blocking Voltage	V _{DC}	50	100	150	200	300	400	600	V		
Maximum Average Forward Rectified Current at T _L = 75 °C	I _{F(AV)}	2							A		
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	I _{FSM}	50							A		
Maximum Forward Voltage at 2 A	V _F	1			1.25		1.7	V			
Maximum DC Reverse Current Ta = 25 °C at Rated DC Blocking Voltage Ta = 125 °C	I _R	5 100							µA		
Typical Junction Capacitance at V _R =4V, f=1MHz	C _j	62							pF		
Maximum Reverse Recovery Time at I _F =0.5A, I _R =1A, I _{rr} =0.25A	t _{rr}	35							ns		
Typical Thermal Resistance ¹⁾	R _{θJA}	40							°C/W		
Operating and Storage Temperature Range	T _j , T _{stg}	-55 ~ +150							°C		

1) P.C.B. mounted with 0.2x0.2"(5.0x5.0mm) copper pad areas



Fig.1 Reverse Recovery Time Characteristic And Test Circuit Diagram



Note: 1. Rise Time = 7ns, max.
Input Impedance = 1megohm,22pF.
2. Ries Time = 10ns, max.
Source Impedance = 50 ohms.

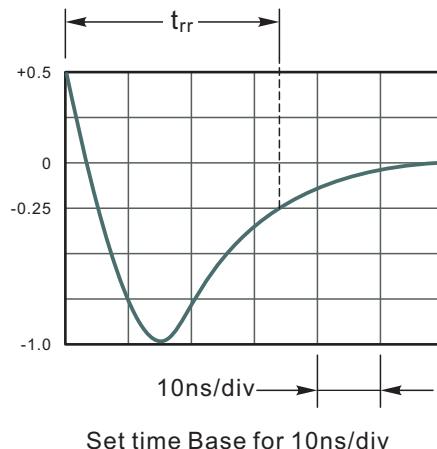


Fig.2 Maximum Average Forward Current Rating

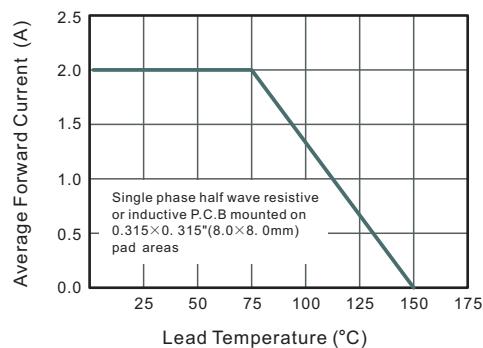


Fig.3 Typical Reverse Characteristics

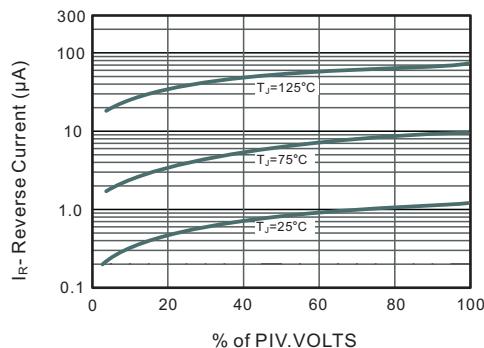


Fig.4 Typical Forward Characteristics

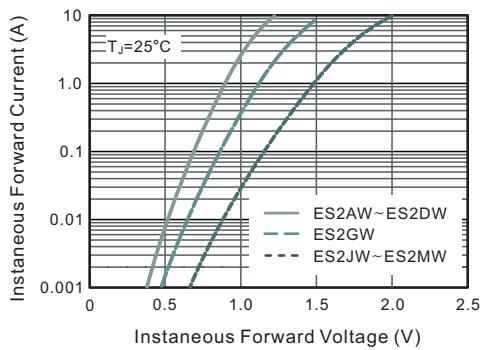
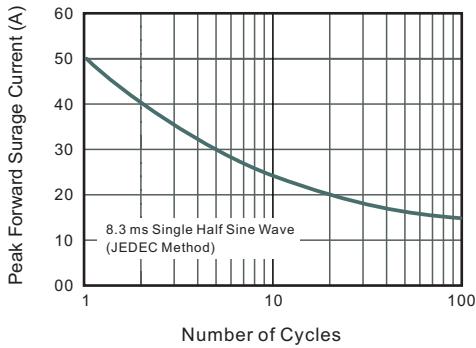


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

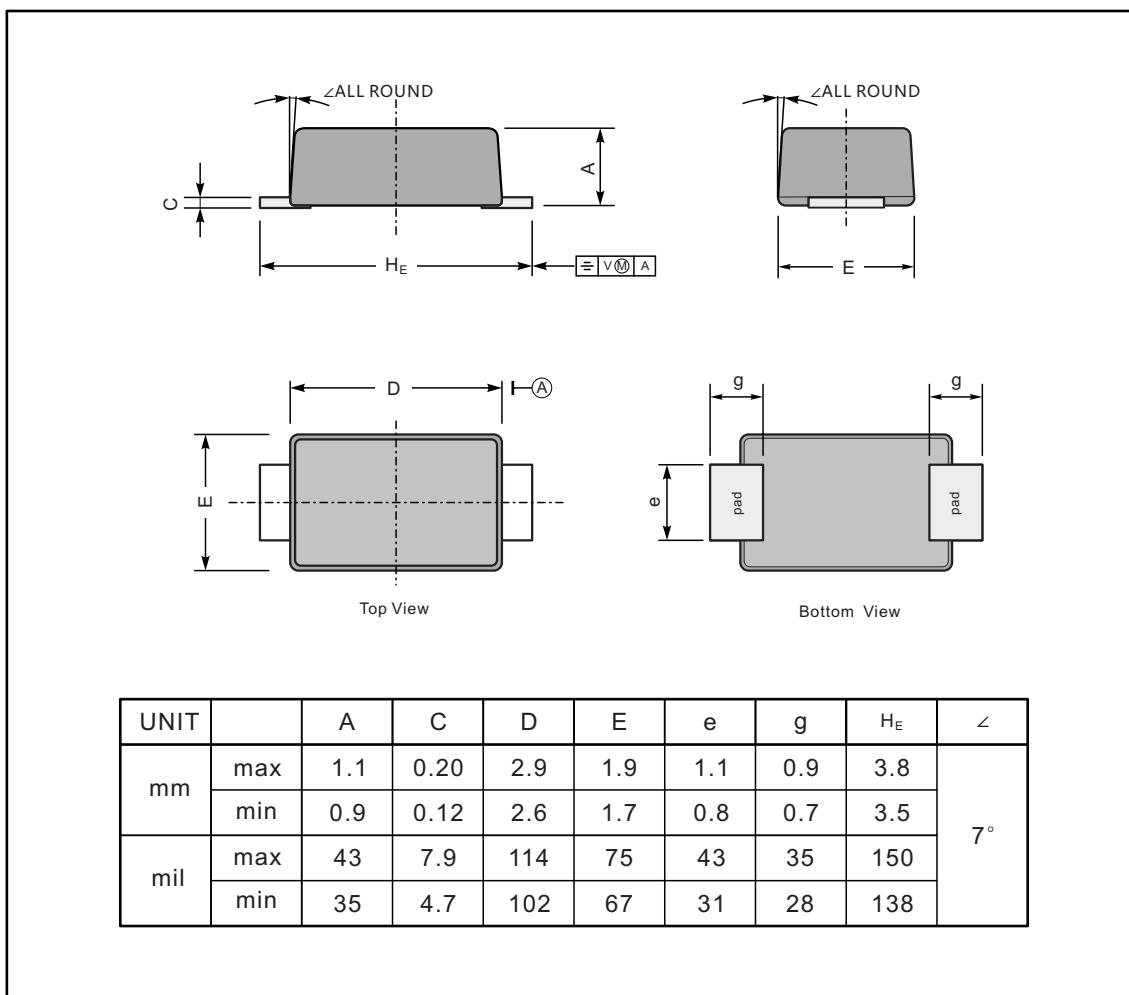




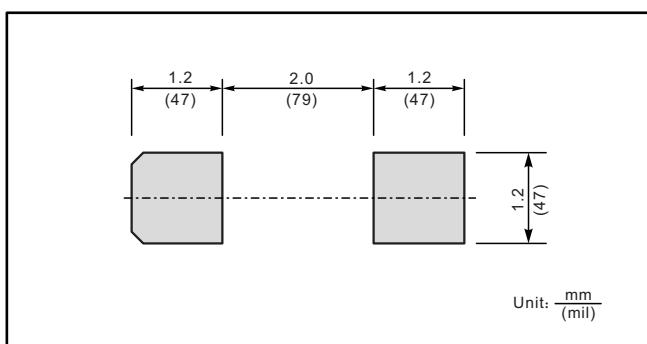
PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-123FL



The recommended mounting pad size



Marking

Type number	Marking code
ES2AW	E2L
ES2BW	
ES2CW	
ES2DW	
ES2EW	E2M
ES2GW	
ES2JW	E2H