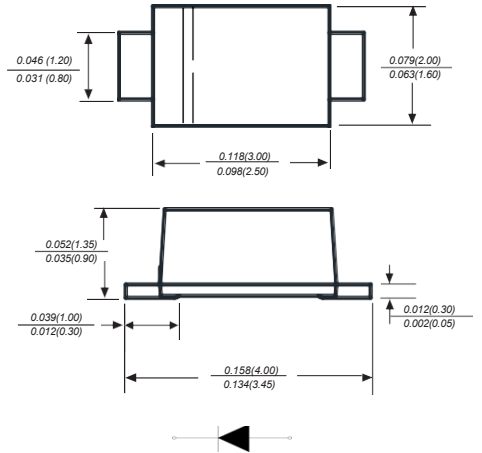


SURFACE MOUNT SUPER FAST RECTIFIER

Features

- ◆ Glass passivated device
- ◆ Ideal for surface mouted applications
- ◆ Low reverse leakage
- ◆ Metallurgically bonded construction
- ◆ High temperature soldering guaranteed:
250°C/10 seconds,0.375"(9.5mm) lead length,
5 lbs. (2.3kg) tension

SOD-123FL



Dimensions in inches and (millimeters)

Maximum Ratings And Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

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

Parameter	SYMBOLS	ES2AW	ES2BW	ES2CW	ES2DW	ES2EW	ES2GW	ES2JW	UNITS
Marking Code		2E1	2E2	2E3	2E4	2E5	2E6	2E8	
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 Ta=65°C	I _(AV)	2.0							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	50							A
Maximum instantaneous forward voltage at 2.0A	V _F	0.95				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 (NOTE 1)	C _J	25							pF
Maximum Reverse Recovery Time (NOTE 2)	t _r	35							ns
Typical thermal resistance (NOTE 3)	R _{θJA}	90							°C/W
Operating junction temperature range	T _J	-55 to +125							°C
Storage temperature range	T _{STG}	-55 to +150							°C

Note: 1. Measured with $I_F=0.5\text{A}$, $I_R=1\text{A}$, $I_{rr}=0.25\text{A}$.

2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

3. PCB mounted on 0.2*0.2" (5.0*5.0mm) copper pad area.

Typical Characteristics

Fig.1 Reverse Recovery Time Characteristic And Test Circuit Diagram

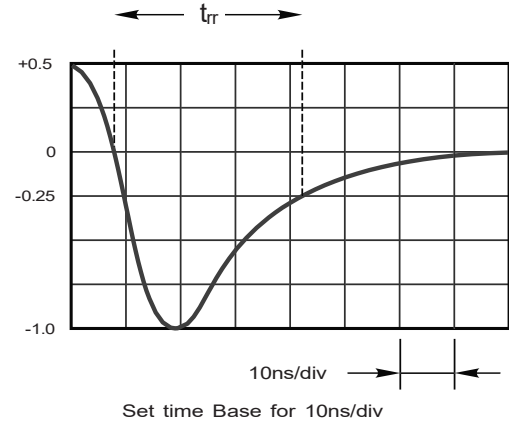
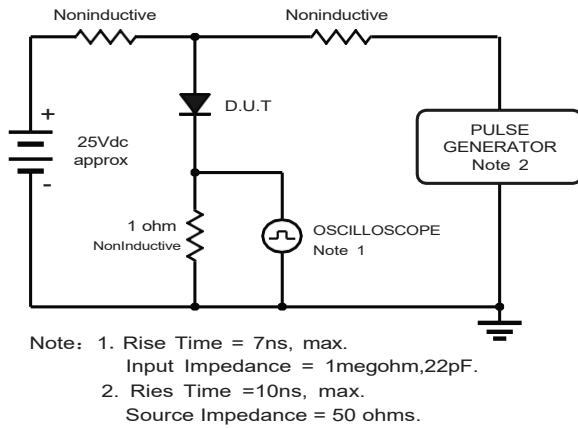


Fig.2 Maximum Average Forward Current Rating

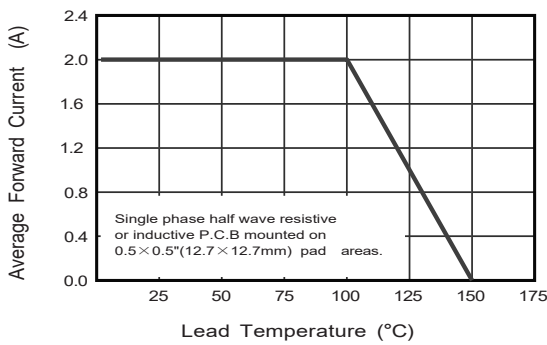


Fig.3 Typical Reverse Characteristics

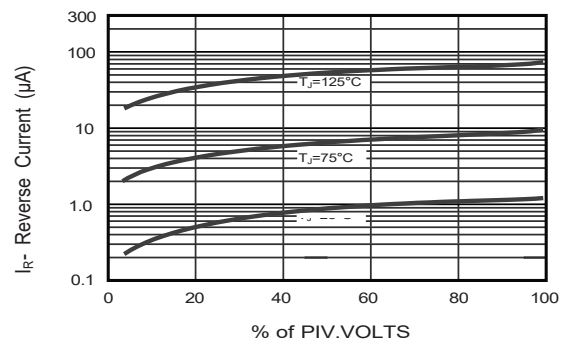


Fig.4 Typical Forward Characteristics

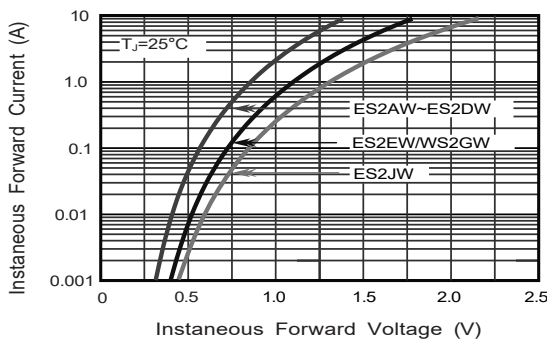


Fig.5 Typical Junction Capacitance

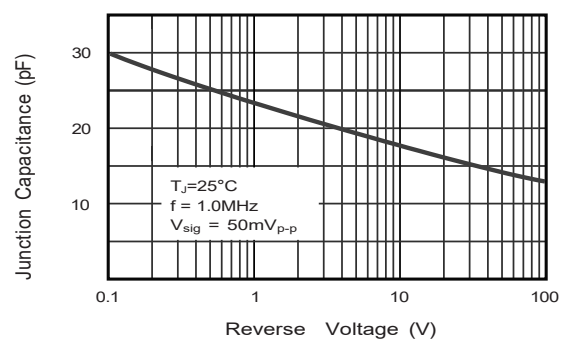
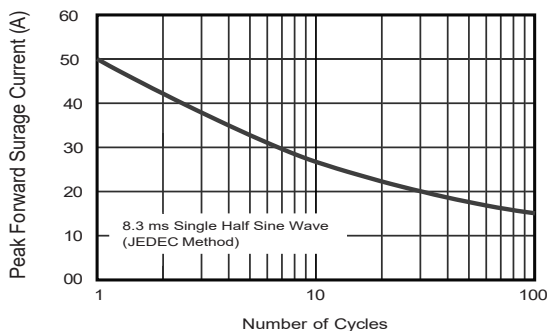


Fig.6 Maximum Non-Repetitive Peak Forward Surge Current



The curve above is for reference only.