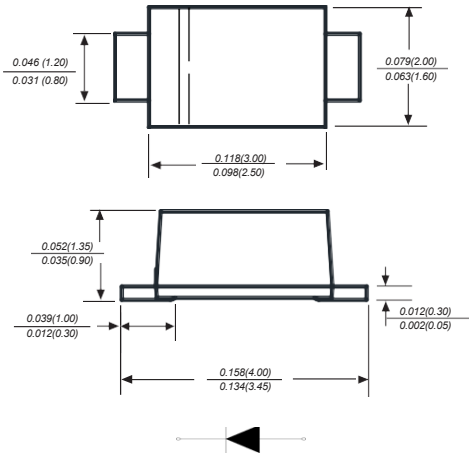
SURFACE MOUNT SUPER FAST RECTIFIER

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

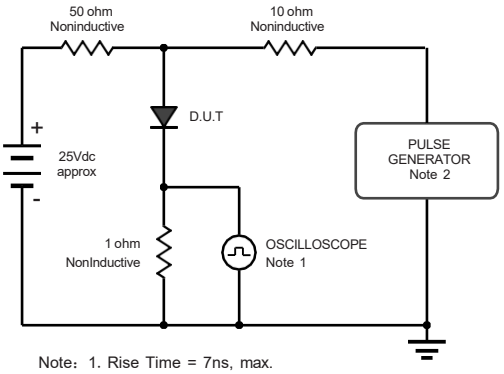
Ratings at 25℃ ambient temperature unless otherwise specified.
Single phase half-wave 60Hz,resistive or inductive load,for capacitive load current derate by 20%.

Parameter / Marking Code	SYMBOLS	DSF1A / E1A	DSF1B / E1B	DSF1C / E1C	DSF1D / E1D	DSF1E / E1E	DSF1G / E1G	DSF1J / E1J	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 TL(see fig.1)	$I_{(AV)}$	1.0							A
Peak forward surge current 8.3ms single half sine-wave superimposed onrated load (JEDEC Method)	I_{FSM}	30							A
Maximum instantaneous forward voltage at 1.0A	V_F	1				1.25		1.68	V
Maximum DC reverse current TA=25℃ at rated DCblocking voltage TA=125℃	I_R	5 100							μA
Typical junction capacitance (NOTE 1)	C_J	15							pF
Maximum Reverse Recovery Time (NOTE 2)	t_{rr}	35							ns
Typical thermal resistance (NOTE 3)	$R_{\theta JA}$	85							℃/W
Operating junction temperature range	T_J	-55 to +150							℃
Storage temperature range	T_{STG}	-55 to +150							℃

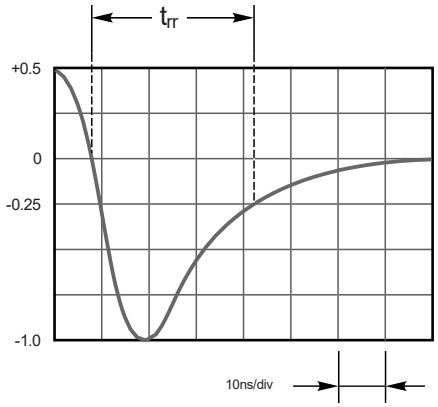
Note: 1.Measured with IF=0.5A, IR=1A, Irr=0.25A.
2.Measured at 1MHz and applied reverse voltage of 4.0V D.C.
3.PCB mounted on 2.0*2.0" (5.0*5.0cm) coppeer pad area.

Typical Characterisitics

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.



Set time Base for 10ns/div

Fig.2 Maximum Average Forward Current Rating

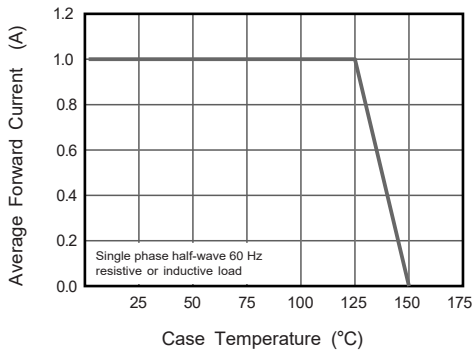


Fig.3 Typical Reverse Characteristics

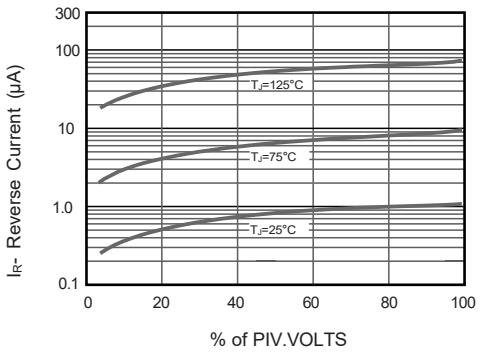


Fig.4 Typical Forward Characteristics

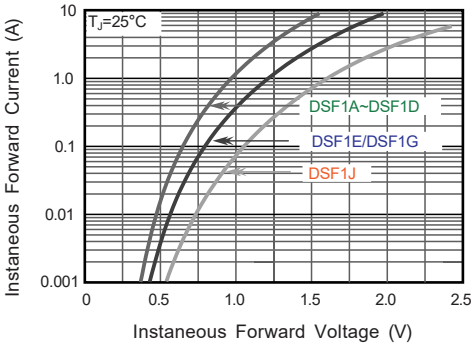


Fig.5 Typical Junction Capacitance

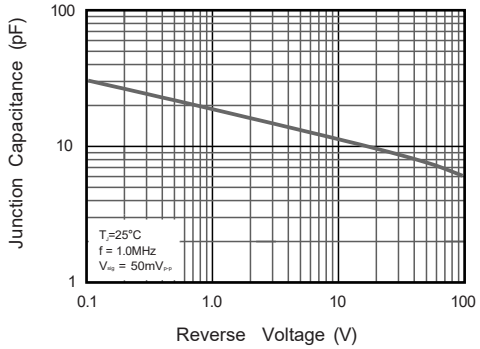
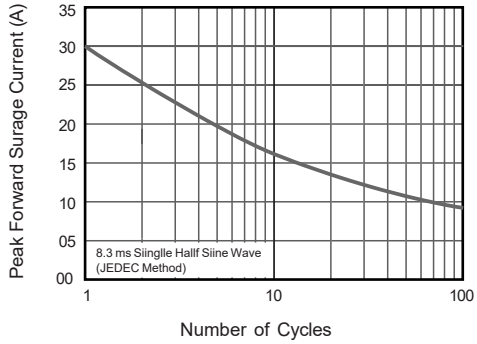


Fig.6 Maximum Non-Repetitive Peak Forward Surage Current



The curve above is for reference only.