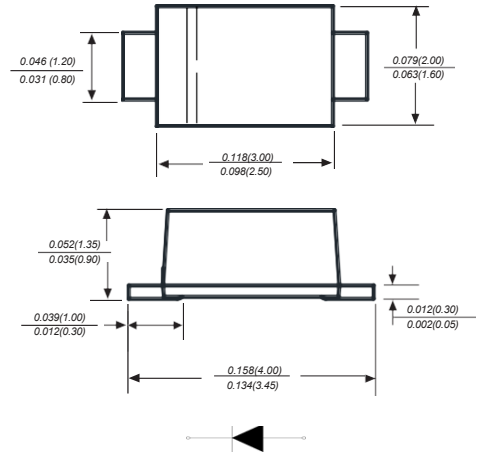


SURFACE MOUNT FAST RECOVERY RECTIFIER

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	SOD1F1	SOD1F2	SOD1F3	SOD1F4	SOD1F5	SOD1F6	SOD1F7	UNITS
Marking Code		F1	F2	F3	F4	F5	F6	F7	
Maximum repetitive peak reverse voltage	V _{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V _{RMS}	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V _{DC}	50	100	200	400	600	800	1000	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 on rated load (JEDEC Method)	I _{FSM}	30							A
Maximum instantaneous forward voltage at 1.0A	V _F	1.3							V
Maximum DC reverse current TA=25℃ at rated DC blocking voltage TA=125℃	I _R	5 100							uA
Typical junction capacitance (NOTE 1)	C _J	15							pF
Maximum Reverse Recovery Time	t _{rr}	150				250	500		ns
Typical thermal resistance (NOTE 2)	RθJA	85							℃/W
Operating junction temperature range	T _J	-55 to +150							℃
Storage temperature range	T _{STG}	-55 to +150							℃

Note: 1. Averaged over any 20ms period.
2. Measured with $I_F=0.5A$, $I_R=1A$, $I_{rr}=0.25A$.
3. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
4. Thermal resistance junction to ambient, 6.0 mm² copper pads to each terminal.

Typical Characterisitcs

Fig.1 Forward Current Derating Curve

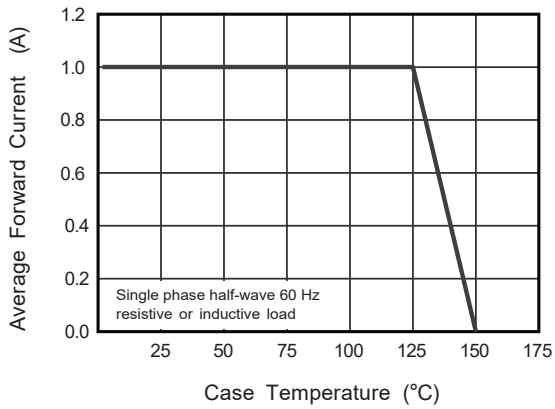


Fig.2 Typical Reverse Characteristics

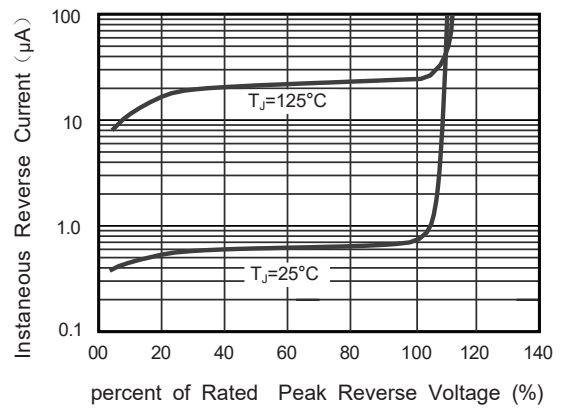


Fig.3 Typical Instaneous Forward Characteristics

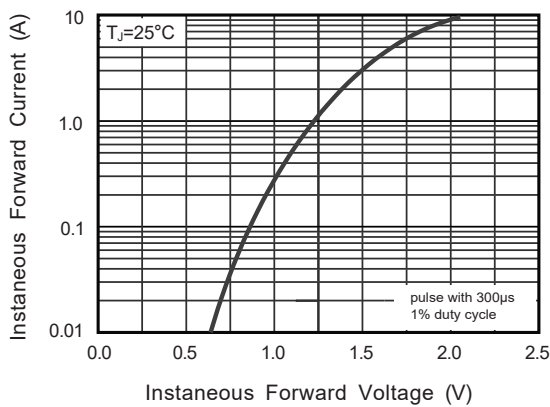


Fig.4 Typical Junction Capacitance

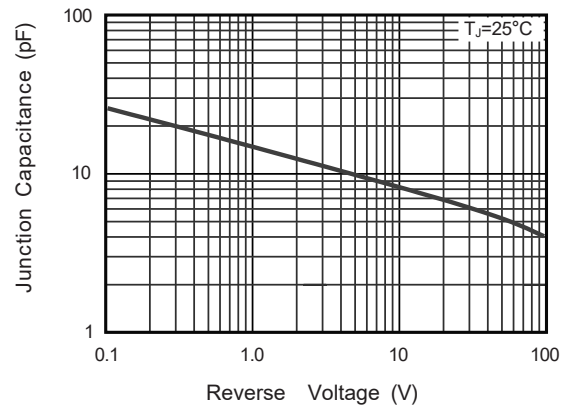
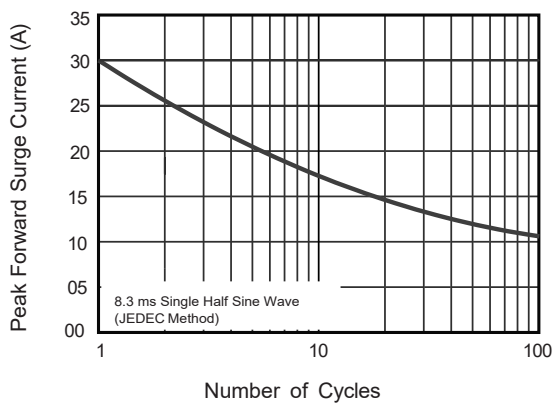


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



The curve above is for reference only.