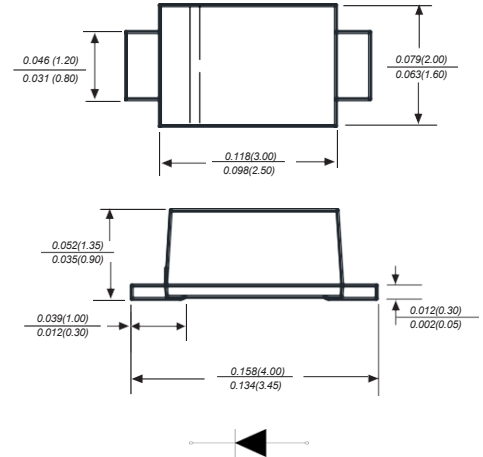


SURFACE MOUNT HIGH EFFICIENCY RECTIFIER

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	US2AW	US2BW	US2DW	US2EW	US2GW	US2JW	US2KW	US2MW	UNITS
Marking Code		2U1	2U2	2U3	2U4	2U5	2U6	2U7	2U8	
Maximum repetitive peak reverse voltage	V _{RRM}	50	100	200	300	400	600	800	1000	V
Maximum RMS voltage	V _{RMS}	35	70	140	210	280	420	560	700	V
Maximum DC blocking voltage	V _{DC}	50	100	200	300	400	600	800	1000	V
Maximum average forward rectified current at TL=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	1.0			1.30		1.70			V
Maximum DC reverse current at rated DC blocking voltage	I _R	5.0								μA
TA=25°C TA=125°C		100.0								
Maximum reverse recovery time (NOTE 1)	t _{rr}	50					75			ns
Typical junction capacitance (NOTE 2)	C _J	15.0								pF
Typical thermal resistance	RθJA	90.0								°C/W
Operating junction and storage temperature range	TJ,TSTG	-55 to +150								°C

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

Ratings And Characteristic Curves

Fig.1 Maximum Average Forward Current Rating

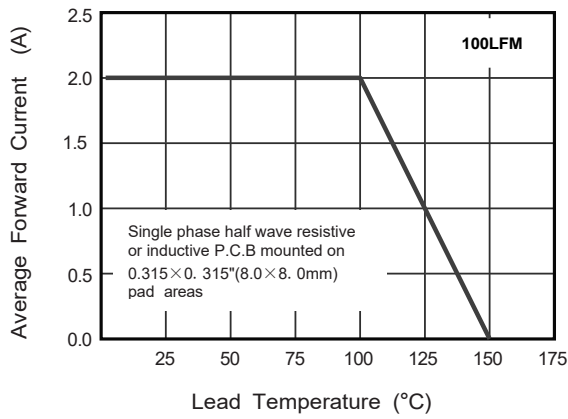


Fig.2 Typical Reverse Characteristics

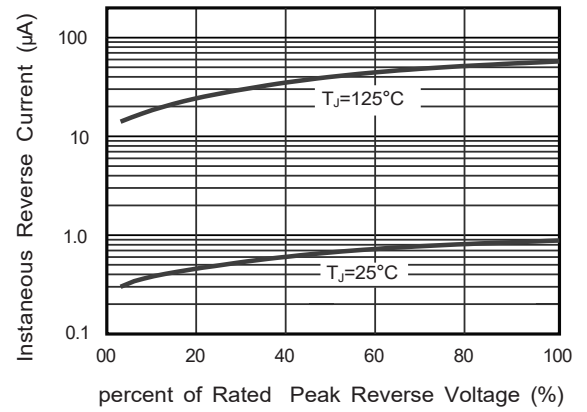


Fig.3 Typical Forward Characteristics

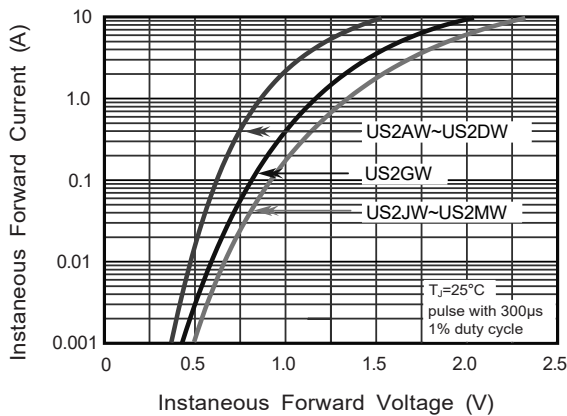


Fig.4 Typical Junction Capacitance

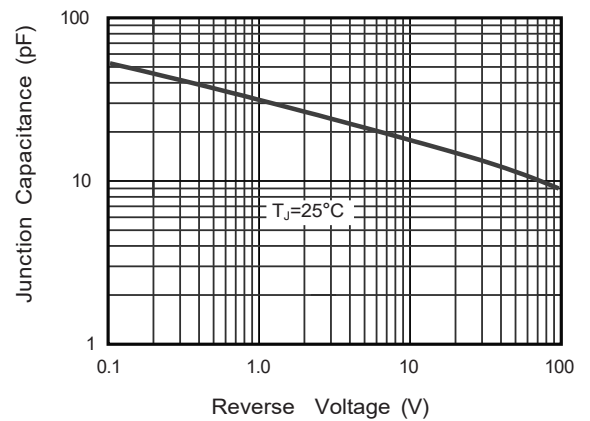


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

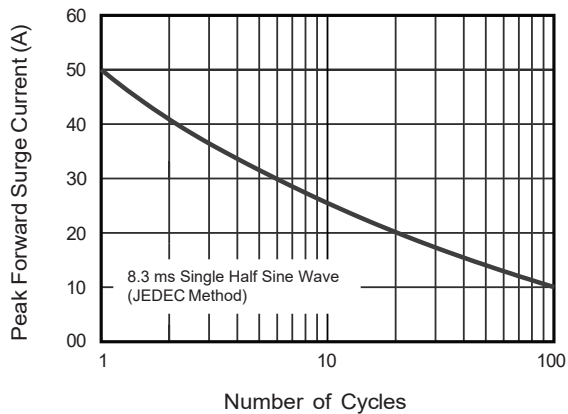
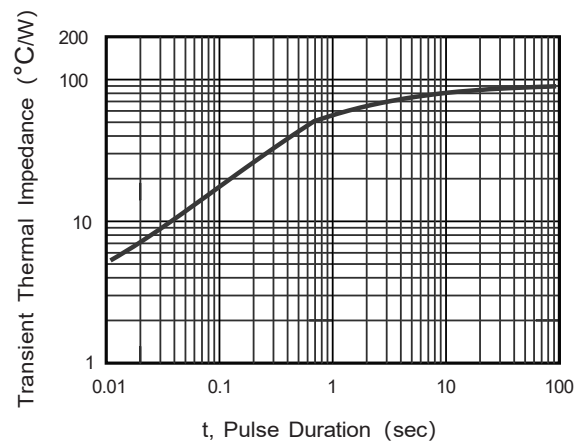


Fig.6- Typical Transient Thermal Impedance



The curve above is for reference only.