

Surface Mount Schottky Barrier Rectifier

Reverse Voltage - 60 V

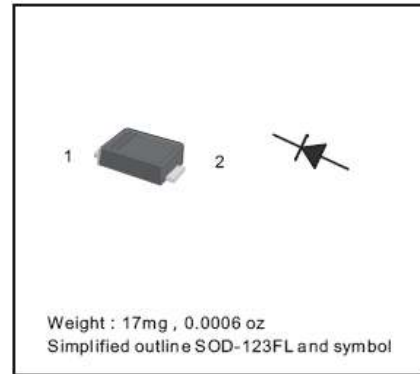
Forward Current - 2.0A

Features

- Metal silicon junction, majority carrier conduction
- For surface mounted applications
- Low power loss, high efficiency
- High forward surge current capability
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Absolute 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, derate by 20 %

Parameter	Symbols			Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	60		V
Maximum RMS voltage	V_{RMS}	42		V
Maximum DC Blocking Voltage	V_{DC}	60		V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	2.0		A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	50	40	A
Max Instantaneous Forward Voltage at 2 A	V_F	0.70	0.85	V
Maximum DC Reverse Current $T_a = 25^\circ\text{C}$ at Rated DC Reverse Voltage $T_a = 100^\circ\text{C}$	I_R	0.5 10	0.3 5	mA
Typical Junction Capacitance ¹⁾	C_j	220	80	pF
Operating Junction Temperature Range	T_j	-55 ~ +125		°C
Storage Temperature Range	T_{stg}	-55 ~ +150		°C

1) Measured at 1MHz and applied reverse voltage of 4 V D.C.

Fig.1 Forward Current Derating Curve

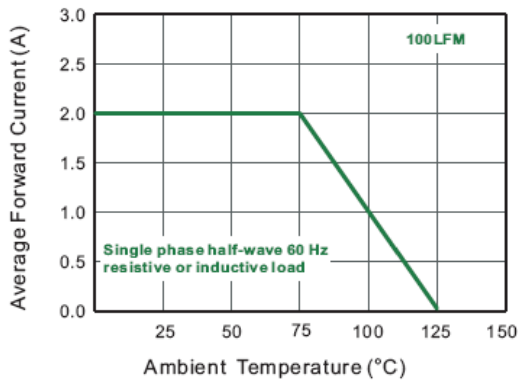


Fig.2 Typical Reverse Characteristics

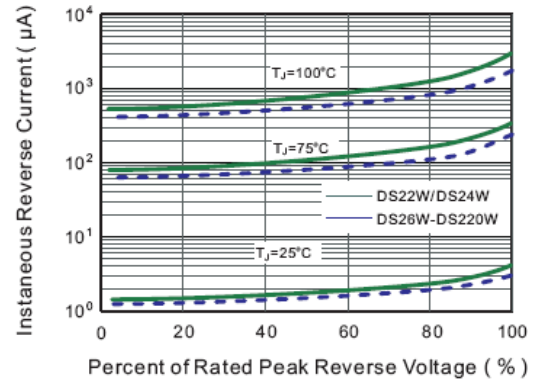


Fig.3 Typical Forward Characteristic

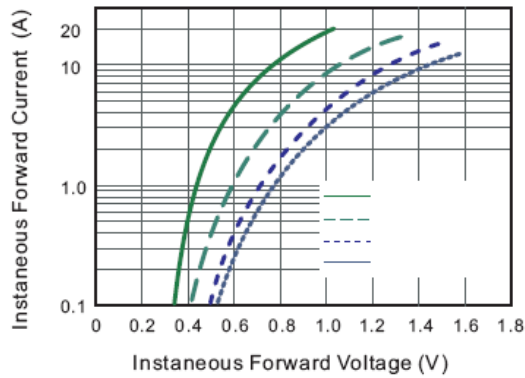


Fig.4 Typical Junction Capacitance

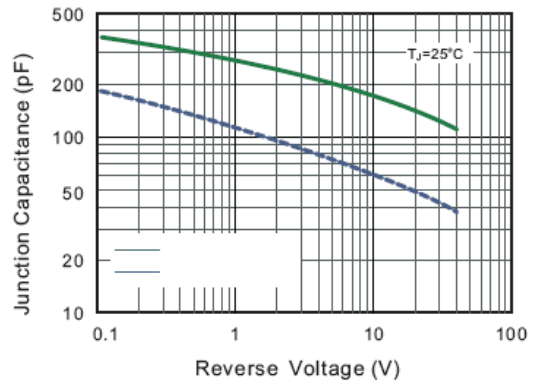
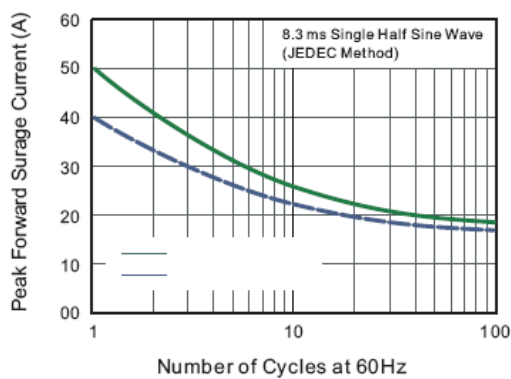


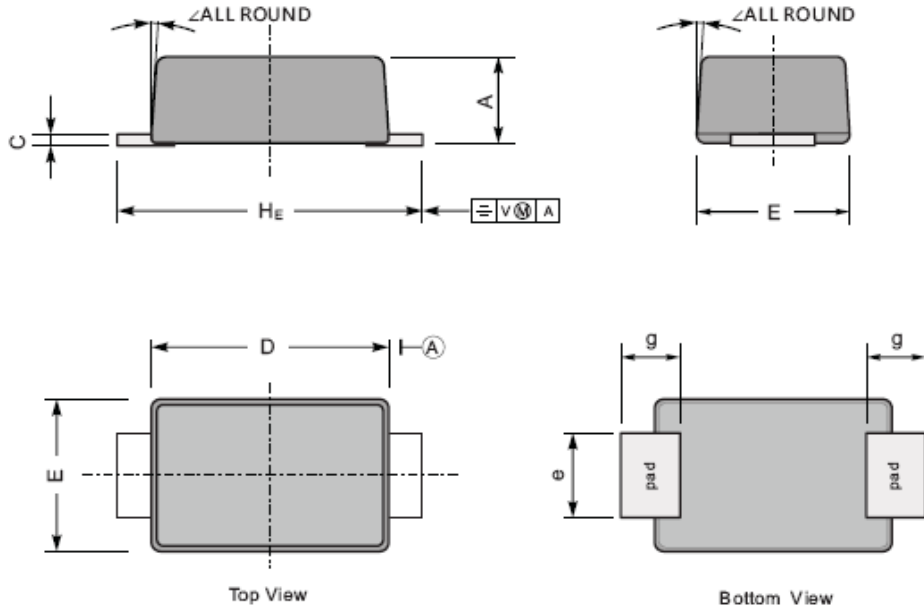
Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



PACKAGE OUTLINE

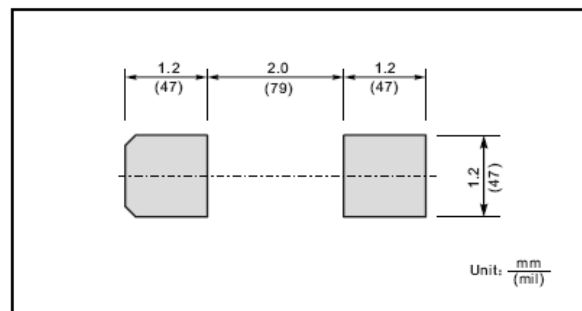
Plastic surface mounted package; 2 leads

SOD123FL

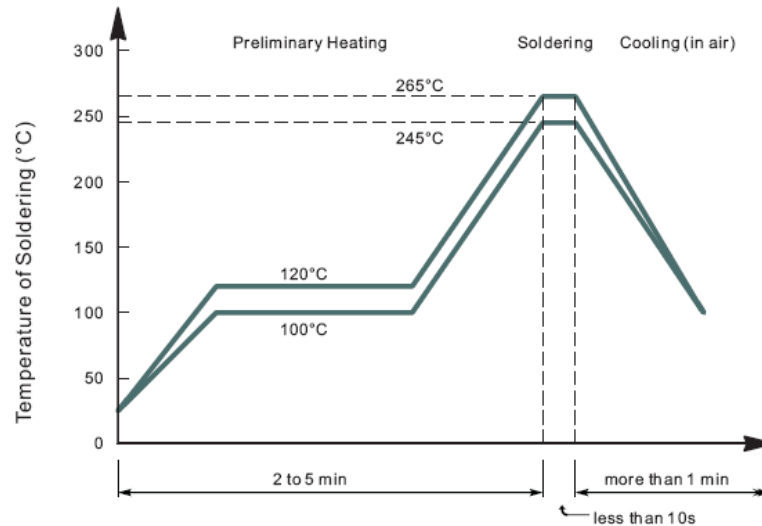


UNIT		A	C	D	E	e	g	H_E	\angle
mm	max	1.1	0.20	2.9	1.9	1.1	0.9	3.8	7°
	min	0.9	0.12	2.6	1.7	0.8	0.7	3.5	
mil	max	43	7.9	114	75	43	35	150	
	min	35	4.7	102	67	31	28	138	

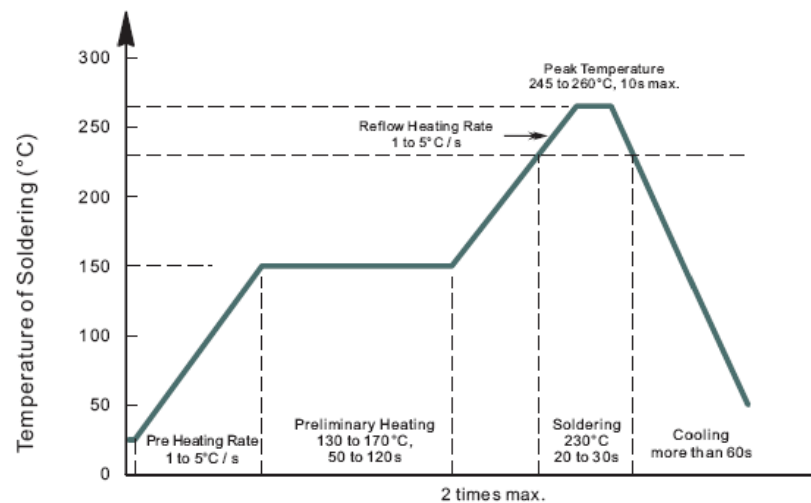
The recommended mounting pad size



• Recommended condition of flow soldering



• Recommended condition of reflow soldering



Recommended peak temperature is over 245 °C. If peak temperature is below 245 °C, you may adjust the following parameters; time length of peak temperature (longer), time length of soldering (longer), thickness of solder paste (thicker)

• Condition of hand soldering

Temperature: 350°C
Time: 3s max.
Times: one time

• Remark:

Lead free solder paste (96.5Sn/3.0Ag/0.5Cu)