



SSCFF1D1 THRU SSCFF7D1

1.0Amp Ultra Fast Recovery Surface Mounted Rectifiers

● Features

- ✧ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ✧ Idea for printed circuit board
- ✧ Glass passivated junction chip
- ✧ Low reverse leakage
- ✧ High forward surge current capability
- ✧ High temperature soldering guaranteed 260℃/10 seconds at terminals

● Mechanical Data

- ✧ Case: Molded plastic body
- ✧ Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- ✧ Polarity: Polarity symbol marking on body
- ✧ Mounting Position: Any

● PIN configuration



SOD-123FL



Circuit Diagram



Marking

(X: 1~7 Marking Code)

● Absolute Maximum Rating @T_A=25℃

Parameter	Symbol	F1	F2	F3	F4	F5	F6	F7	Unit
Maximum Peak 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	I _{F(AV)}	1.0							A
Non-repetitive Peak Forward Surge Current @t=8.3ms	I _{FSM}	30.0							A
Max Instantaneous Forward Voltage at 1.0A	V _F	1.3							V
Maximum DC Reverse Current Ta = 25 ℃ at Rated DC Blocking Voltage Ta =100 ℃	I _R	2.0 200							μA
Maximum Reverse Recovery Time (Note 1)	T _{rr}	150				250	500		ns
Typical Junction Capacitance (Note 2)	C _J	9.0							pF
Typical Thermal Resistance	R _{qJA}	85.0							℃/W
Operating Temperature and Storage Temperature	T _J , T _{STG}	-55 ~ +150							℃

Note: 1. Reverse recovery time test condition: I_F=0.5A I_R=1.0A I_{rr}=0.25A

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



● Typical Performance Characteristics

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

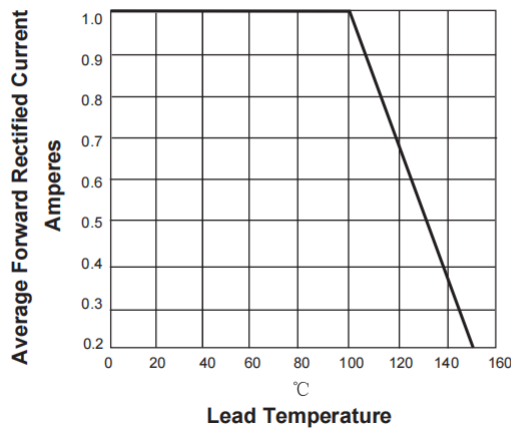


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

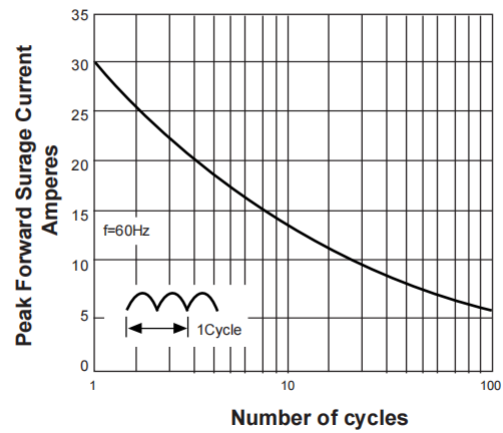


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

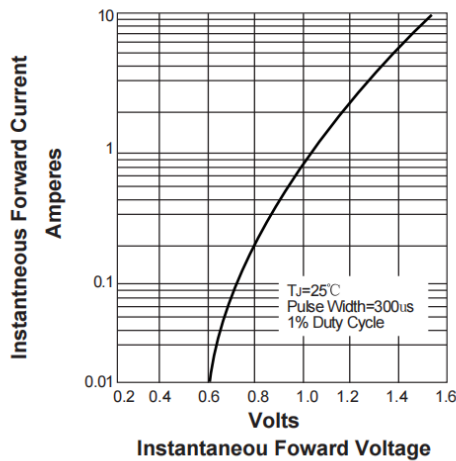
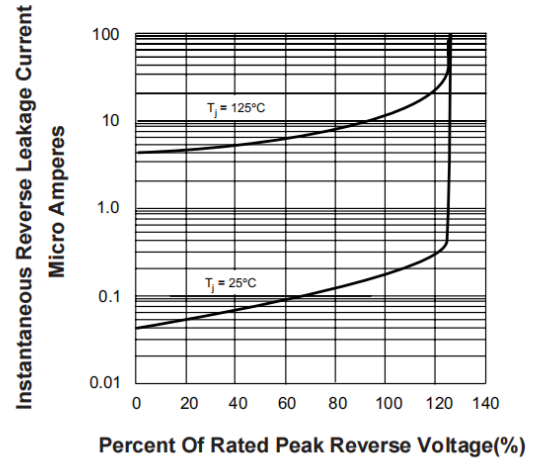
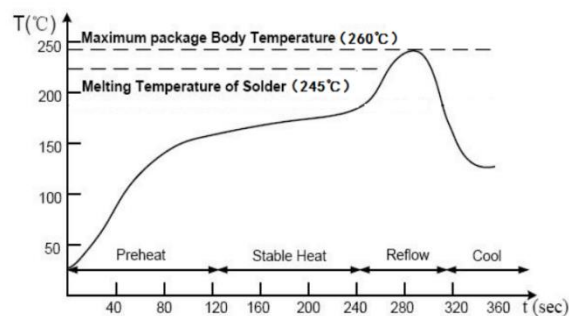


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



● Suggested Soldering Temperature Profile



NOTE:

- ✧ Recommended reflow methods: IR, vapor phase oven, hot air oven, wave solder.
- ✧ The device can be exposed to a maximum temperature of 260°C for 10 seconds.
- ✧ Devices can be cleaned using standard industry methods and solvents.
- ✧ If reflow temperatures exceed the recommended profile, devices may not meet the performance requirements.



SSCFF1-F7D1

● Package Information

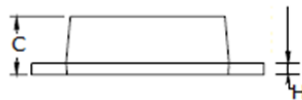
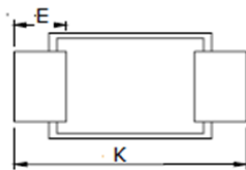
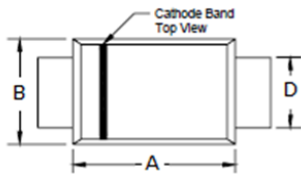
Ordering Information

Device	Package	Marking	Qty per Reel	Reel Size
SSCFF1D1	SOD-123FL	F1	3000	7 Inch
SSCFF2D1	SOD-123FL	F2	3000	7 Inch
SSCFF3D1	SOD-123FL	F3	3000	7 Inch
SSCFF4D1	SOD-123FL	F4	3000	7 Inch
SSCFF5D1	SOD-123FL	F5	3000	7 Inch
SSCFF6D1	SOD-123FL	F6	3000	7 Inch
SSCFF7D1	SOD-123FL	F7	3000	7 Inch

Mechanical Data

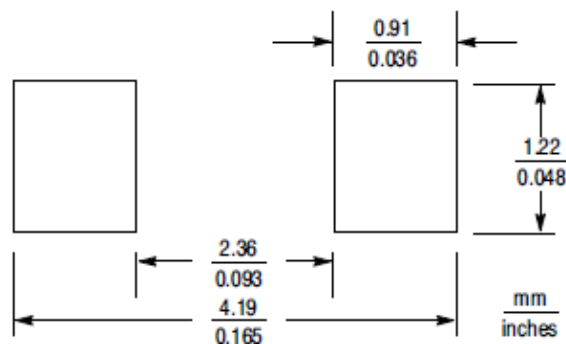
Case: SOD-123FL

Case Material: Molded Plastic. UL Flammability



Dim	Millimeters	
	Min	Max
A	2.5	A
B	1.5	B
C	0.9	C
D	0.70	D
E	0.45	E
H	0.05	H
K	3.40	K

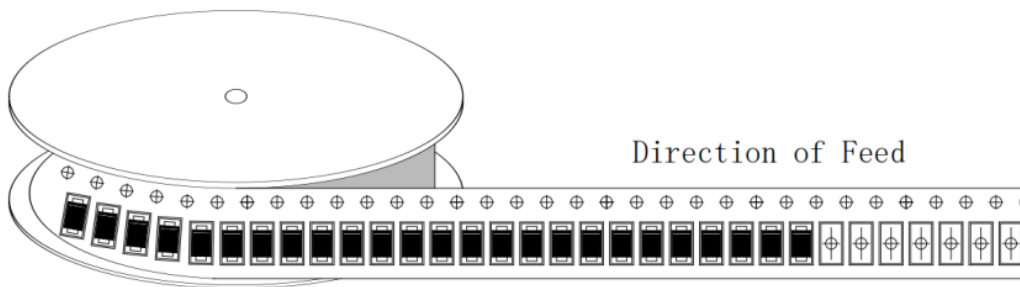
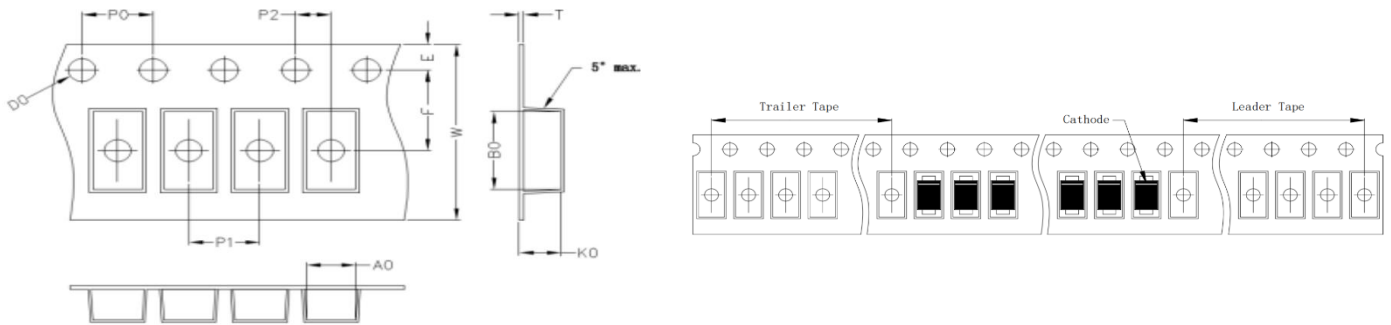
Recommended Pad outline (Unit: mm)



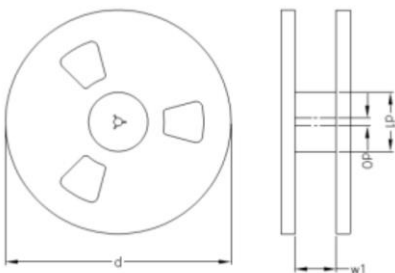


SSCFF1-F7D1

● Type and Reel Information-SOD-123FL



A0	B0	K0	D0	E	F
2.15±0.2	3.95±0.2	1.35±0.2	1.50±0.10	1.75±0.2	3.50±0.2
P0	P	P1	P2	W	
4.00±0.10	4.00±0.10	2.00±0.10	0.23±0.05	8.0±0.5	
Trailer Tape		50 Empty Pockets			
Leader Tape		100 Empty Pockets			



d	d0	d1	w1	t1
178±2.0	54.4±0.2	13.0±0.5	9.5±0.5	6.50±0.2



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