

Surface Mount Schottky Barrier Rectifiers

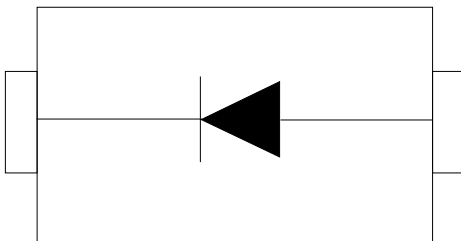
Description

General Application Schottky barrier rectifier, encapsulated in a SOD-123FL Surface-Mounted Device (SMD) plastic package.

Features

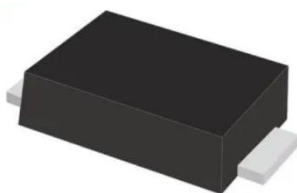
- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- For surface mounted applications
- Built-in strain relief, ideal for automated placement
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed 260 °C/10 seconds at terminals

Dimensions and Pin Configuration



Graphic symbol

Package



SOD-123FL (Top View)

Mechanical Characteristics

- Case: JEDEC SOD-123FL molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Device meets MSL 1, per J-STD-020
- Polarity: Polarity symbol marking on body
- Case Material: “Green” Molding Compound

Applications

- Switch Mode Power Supply (SMPS)
- For use in low voltage high frequency inverters, freewheeling
- DC/DC converters, and polarity protection applications

Ordering Information

Part Number	Marking	Shipping	Reel Size
SS32D1F	K32	3000/Tape & Reel	7 inch
SS34D1F	K34	3000/Tape & Reel	7 inch
SS36D1F	K36	3000/Tape & Reel	7 inch
SS38D1F	K38	3000/Tape & Reel	7 inch
SS310D1F	K310	3000/Tape & Reel	7 inch
SS315D1F	K315	3000/Tape & Reel	7 inch
SS320D1F	K320	3000/Tape & Reel	7 inch

Absolute Maximum Ratings ($T_A=25^{\circ}\text{C}$ unless otherwise specified)

Items	Symbol	SS32D1F	SS34D1F	SS36D1F	SS38D1F	SS310D1F	SS315D1F	SS320D1F	UNIT
Maximum repetitive peak reverse voltage	V _{RRM}	20	40	60	80	100	150	200	V
Maximum RMS voltage	V _{RMS}	14	28	42	56	70	105	140	V
Maximum DC blocking voltage	V _{DC}	20	40	60	80	100	150	200	V
Maximum average forward rectified current	I _{F(AV)}	3.0							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load	I _{FSM}	70.0							A
Typical thermal resistance	R _{qJA}	85.0							°C/W
Operating junction temperature range	T _J	-55 ~ + 125			-55 ~ + 150				°C
Storage temperature range	T _{STG}	-55 ~ +150							°C

Electrical Characteristics ($T_A=25^{\circ}\text{C}$ unless otherwise specified)

Items	Test conditions	Symbol	SS32~34D1F	SS36D1F	SS38~310D1F	SS315~320D1F	UNIT
Maximum instantaneous forward voltage	I _F =3.0A	V _F	0.55	0.70	0.85	0.95	V
Maximum DC reverse current	T _A =25℃	I _R	0.2		0.05		mA
rated DC blocking voltage	T _A =100℃		20		5		

Typical Performance Characteristics ($T_A=25^\circ\text{C}$ unless otherwise Specified)

FIG.1-DERATING CURVE OUTPUT RECTIFIED CURRENT

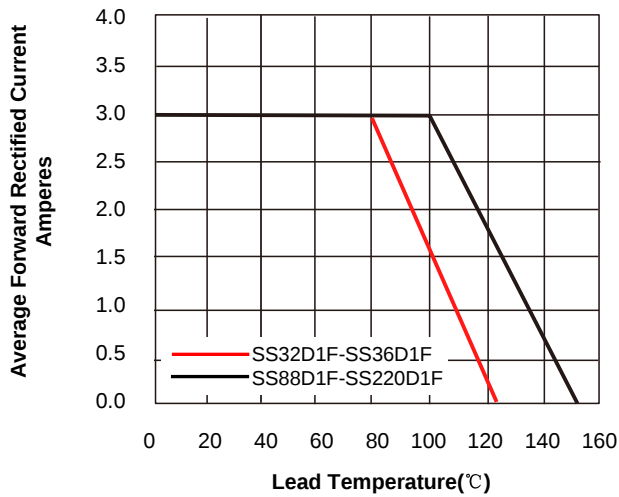


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD

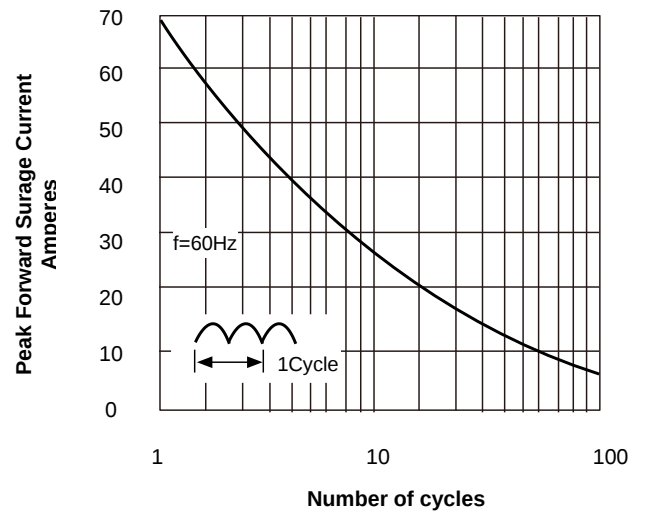


FIG.3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

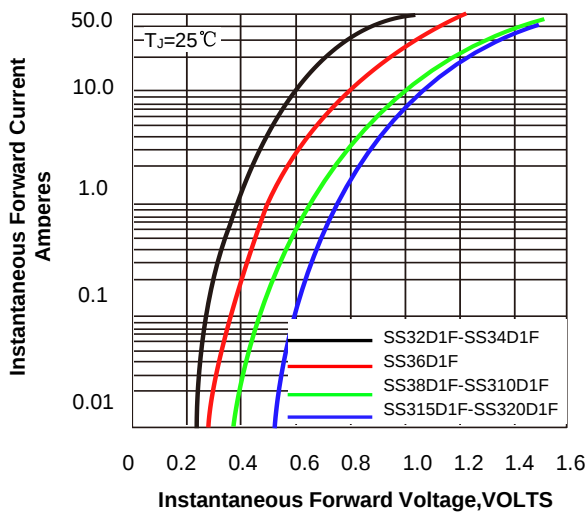
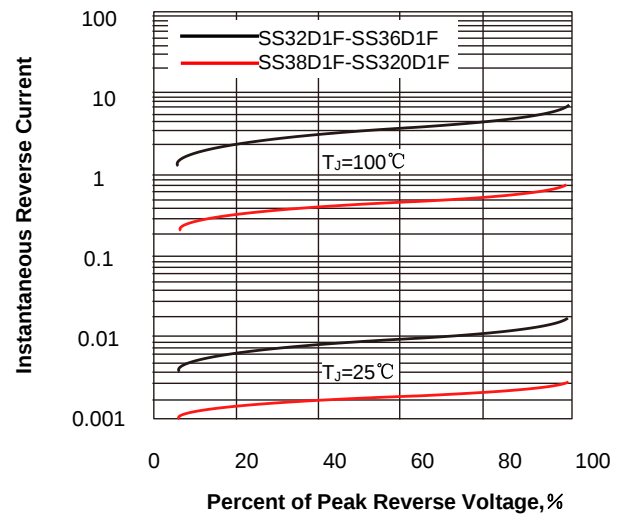
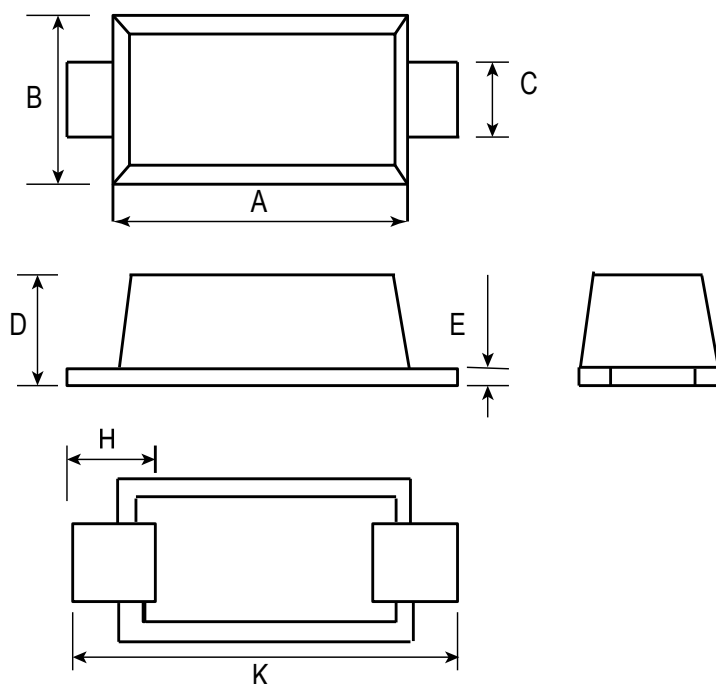


FIG.4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS

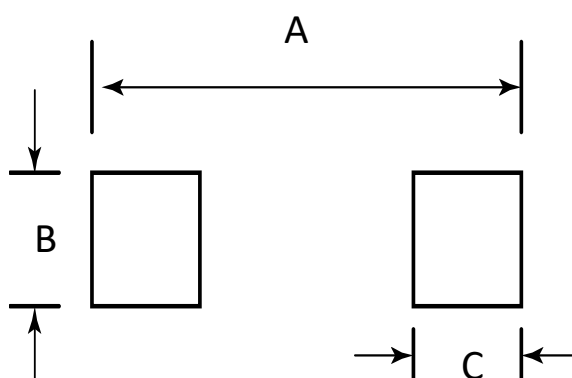


SOD-123FL Package Outline Drawing



DIM	Millimeters		
	Min	Nom	Max
A	2.60	2.80	3.00
B	1.60	1.80	2.00
C	0.80	1.00	1.20
D	0.9		1.30
E	0.10	0.20	0.30
H	0.35		0.85
K	3.50		4.00

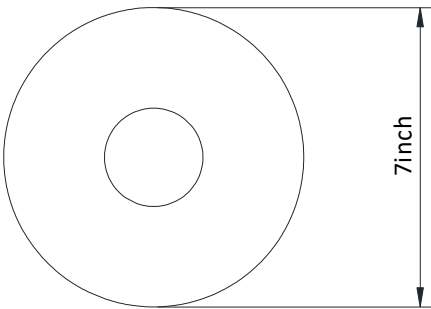
Suggested Land Pattern



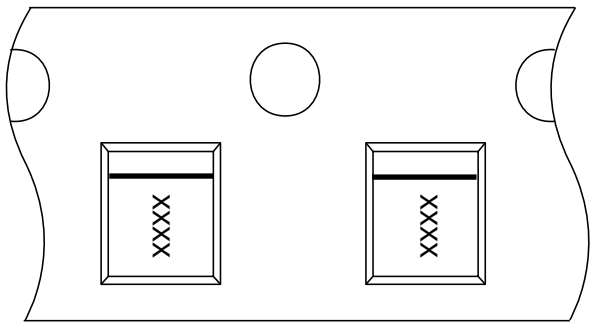
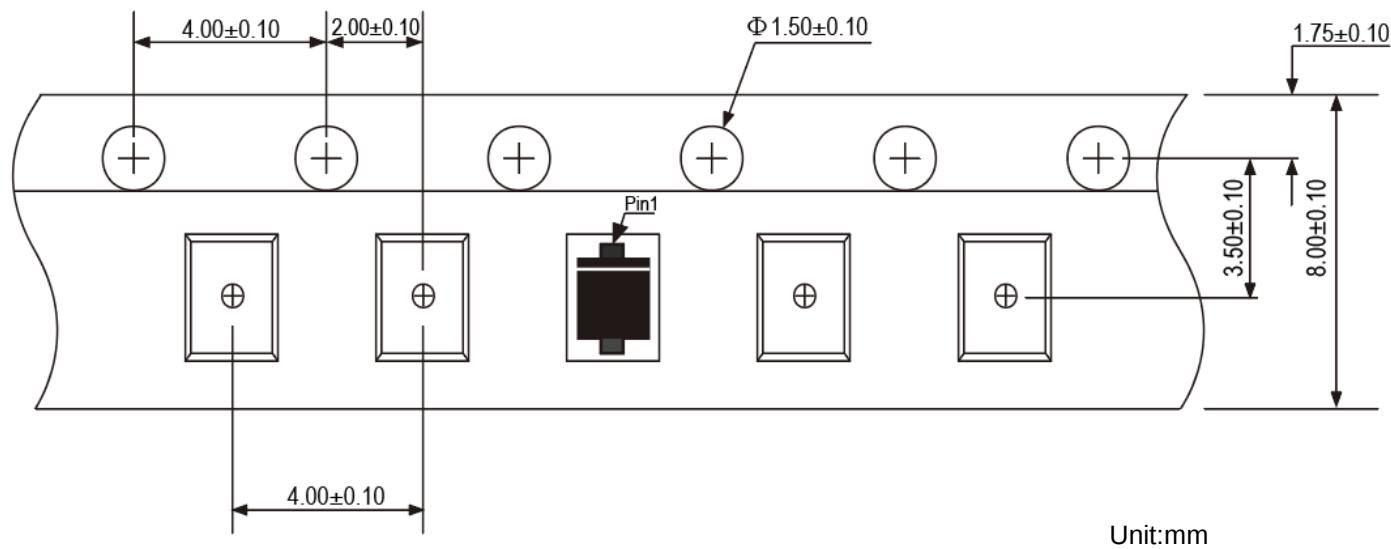
SYM	DIMENSIONS	
	MILLIMETERS	INCHES
A	4.19	0.165
B	1.20	0.048
C	0.90	0.036

TAPE AND REEL INFORMATION

Reel Dimensions



Tape Dimensions



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User Direction of Feed

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