



# SS1090VFL

## LOW VF SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

**VOLTAGE** 90 Volt **CURRENT** 1 Ampere

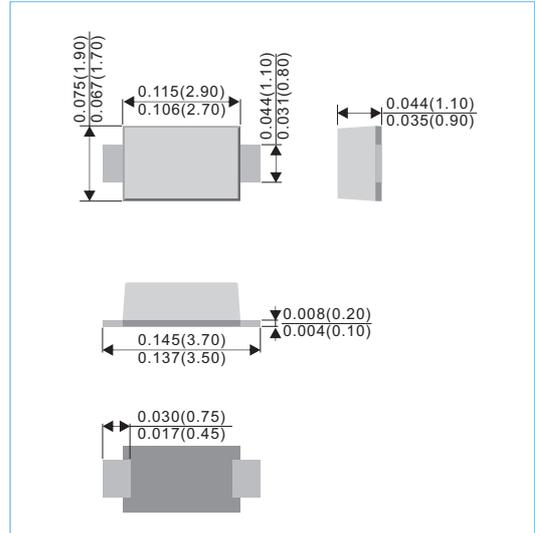
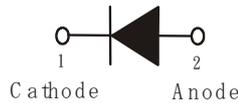
**SOD-123FL** Unit : inch(mm)

### FEATURES

- Fast switching speed
- Surface mount package ideally suited for automatic insertion
- Low power loss, high efficiency
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

### MECHANICAL DATA

- Case: SOD-123FL, Plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.0006 ounces, 0.0173 grams
- Polarity: Color band denotes cathode end
- Marking: RD



### ABSOLUTE MAXIMUM RATINGS (T<sub>A</sub>=25°C unless otherwise noted)

PARAMETER	SYMBOL	VALUE	UNITS
Reverse Voltage	V <sub>R</sub>	90	V
Peak Reverse Voltage	V <sub>RRM</sub>	90	V
Average Rectified Current	I <sub>O</sub>	1	A
Peak Forward Surge Current: 8.3ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	50	A
Typical Thermal Resistance, Junction to Ambient (Note 1)	R <sub>θJA</sub>	180	°C/W
Operating Junction Temperature and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55 to +150	°C

### ELECTRICAL CHARACTERISTICS (T<sub>A</sub>=25°C unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Reverse Breakdown Voltage	V <sub>(BR)</sub>	I <sub>R</sub> =1mA	90	-	-	V
Reverse Current	I <sub>R</sub>	V <sub>R</sub> =90 V	-	-	100	μA
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> =1.0A	-	0.68	0.73	V
Typical Junction Capacitance	C <sub>J</sub>	V <sub>R</sub> =0V, f=1.0MHz	-	203	-	pF

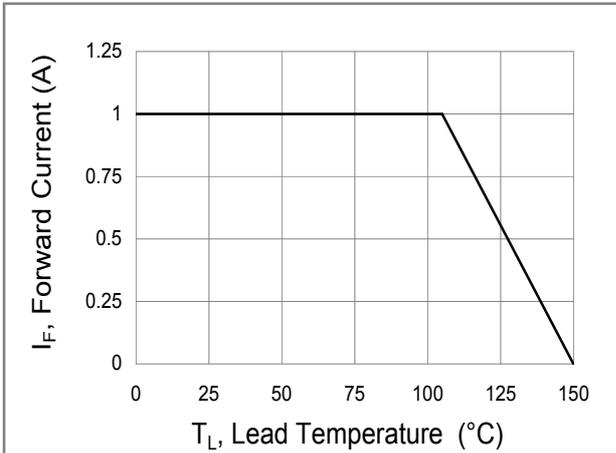
### NOTES:

1. Mounted on 48cm<sup>2</sup> FR-4 PCB

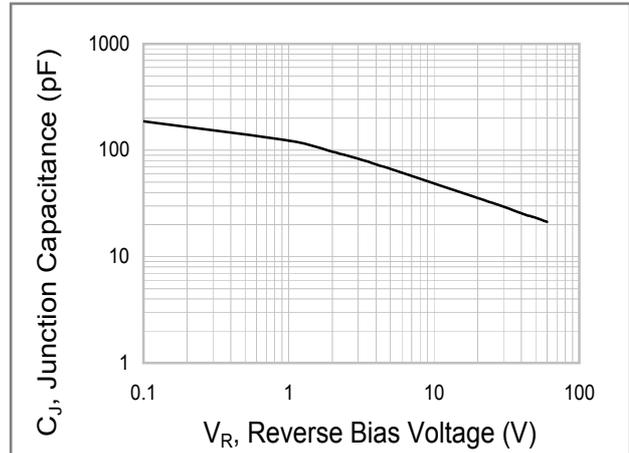


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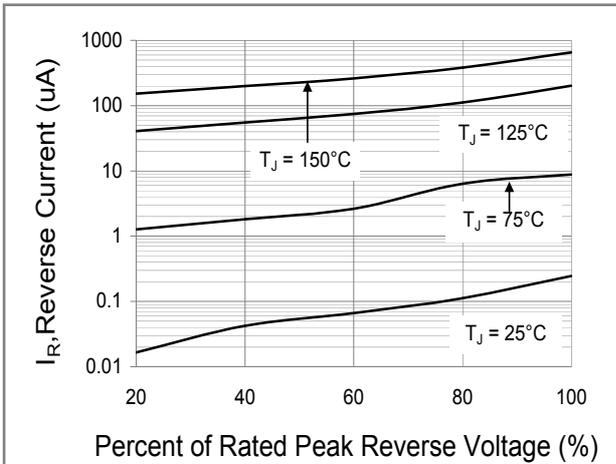
## RATING AND CHARACTERISTIC CURVES



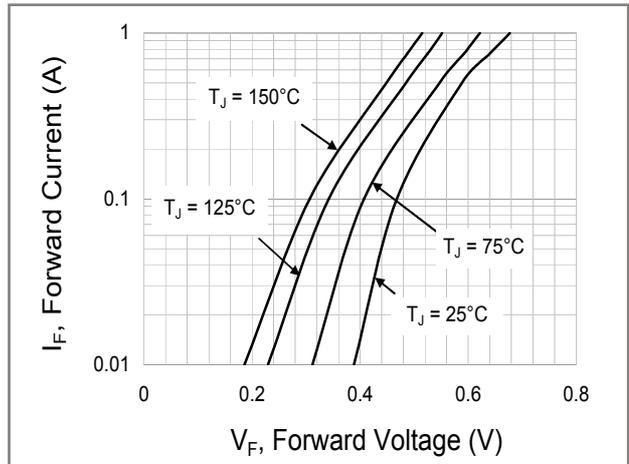
**Fig.1 Forward Current Derating Curve**



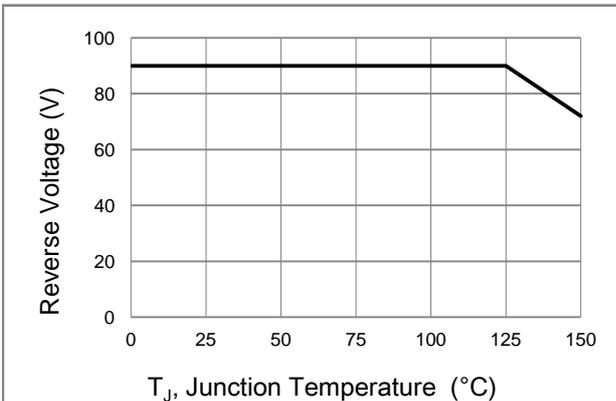
**Fig.2 Typical Junction Capacitance**



**Fig.3 Typical Reverse Characteristics**



**Fig.4 Typical Forward Characteristics**

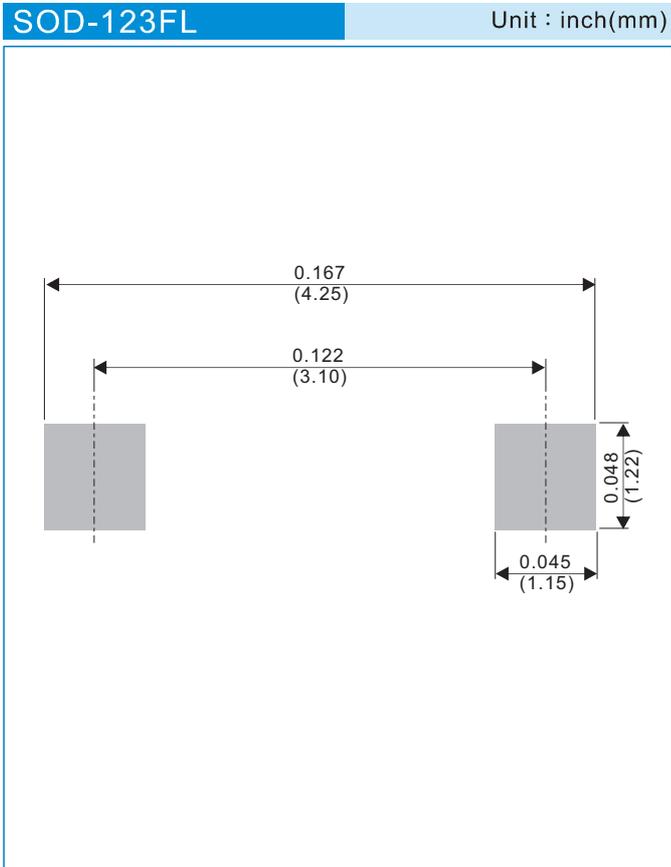


**Fig.5 Operating Temperature Derating Curve**



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## MOUNTING PAD LAYOUT



## ORDER INFORMATION

- Packing information  
T/R - 10K per 13" plastic Reel  
T/R - 3K per 7" plastic Reel



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## Part No\_packing code\_Version

SS1090VFL\_R1\_00001

SS1090VFL\_R2\_00001

For example :

RB500V-40\_R2\_00001



Packing Code <b>XX</b>				Version Code <b>XXXXX</b>		
Packing type	1 <sup>st</sup> Code	Packing size code	2 <sup>nd</sup> Code	HF or RoHS	1 <sup>st</sup> Code	2 <sup>nd</sup> -5 <sup>th</sup> Code
Tape and Ammunition Box (T/B)	A	N/A	0	HF	0	serial number
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number
Bulk Packing (B/P)	B	13"	2			
Tube Packing (T/P)	T	26mm	X			
Tape and Reel (Right Oriented) (TRR)	S	52mm	Y			
Tape and Reel (Left Oriented) (TRL)	L	PANASERT T/B CATHODE UP (PBCU)	U			
FORMING	F	PANASERT T/B CATHODE DOWN (PBCD)	D			



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