

## Surface Mount Fast Recovery Rectifiers

Reverse Voltage - 50 to 1000 V

Forward Current - 2 A

### FEATURES

- ◆For surface mounted applications
- ◆Low profile package
- ◆Glass Passivated Chip Junction
- ◆Ideal for automated placement
- ◆Fast reverse recovery time
- ◆Lead free in comply with EU RoHS 2011/65/EU directives

### MECHANICAL DATA


- ◆Case: SOD-123FL
- ◆Terminals: Solderable per MIL-STD-750, Method 2026
- ◆Approx. Weight: 15mg / 0.00053oz

### Absolute Maximum Ratings and characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20 %.

### Pinning

1.Cathode	2.Anode
	
SOD123FL	

### Marking Code

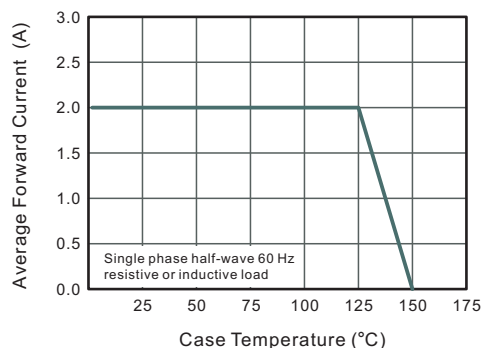
RS2AW	YFW 2F1
RS2BW	YFW 2F2
RS2DW	YFW 2F3
RS2GW	YFW 2F4
RS2JW	YFW 2F5
RS2KW	YFW 2F6
RS2MW	YFW 2F7

Parameter	Symbols	RS2AW	RS2BW	RS2DW	RS2GW	RS2JW	RS2KW	RS2MW	Units
Maximum Repetitive Peak Reverse Voltage	<b>V<sub>RRM</sub></b>	50	100	200	400	600	800	1000	<b>V</b>
Maximum RMS voltage	<b>V<sub>RMS</sub></b>	35	70	140	280	420	560	700	<b>V</b>
Maximum DC Blocking Voltage	<b>V<sub>DC</sub></b>	50	100	200	400	600	800	1000	<b>V</b>
Maximum Average Forward Rectified Current at T <sub>c</sub> = 125 °C	<b>I<sub>F(AV)</sub></b>	2							<b>A</b>
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	<b>I<sub>FSM</sub></b>	50							<b>A</b>
Maximum Instantaneous Forward Voltage at 2 A	<b>V<sub>F</sub></b>	1.3							<b>V</b>
Maximum DC Reverse Current   T <sub>a</sub> = 25 °C at Rated DC Blocking Voltage   T <sub>a</sub> =125 °C	<b>I<sub>R</sub></b>	5 100							<b>μA</b>
Typical Junction Capacitance at V <sub>R</sub> =4V,f=1MHZ	<b>C<sub>J</sub></b>	30							<b>pF</b>
Maximum Reverse Recovery Time <sup>(1)</sup>	<b>T<sub>rr</sub></b>	150				250	500		<b>nS</b>
Typical Thermal Resistance <sup>(2)</sup>	<b>R<sub>θJA</sub>/R<sub>θJC</sub></b>	75/22							<b>°C/W</b>
Operating and Storage Temperature Range	<b>T<sub>j</sub>, T<sub>stg</sub></b>	-55 ~ +150							<b>°C</b>

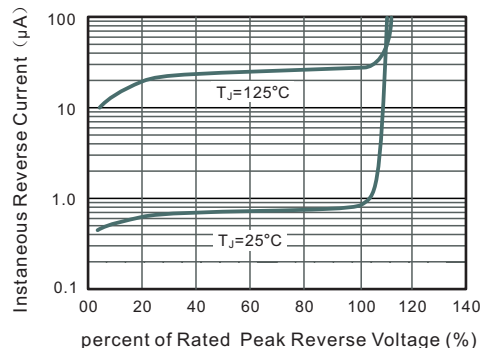
(1) Measured with  $I_F=0.5\text{A}, I_R=1\text{A}, I_n=0.25\text{A}$

(2) P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas.

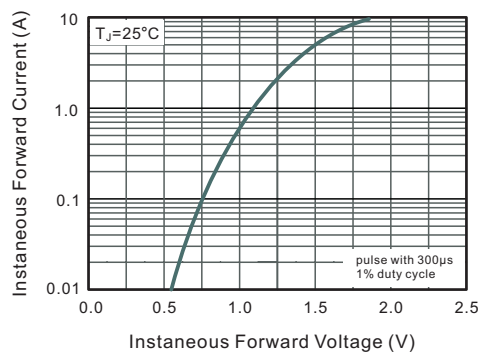
**Fig.1 Forward Current Derating Curve**



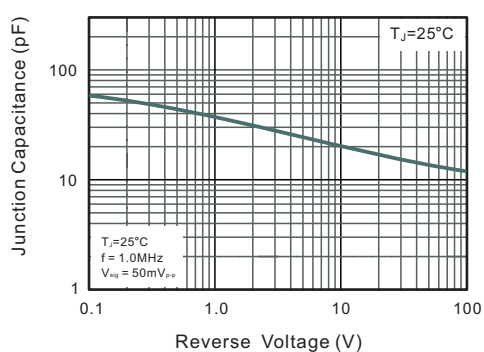
**Fig.2 Typical Reverse Characteristics**



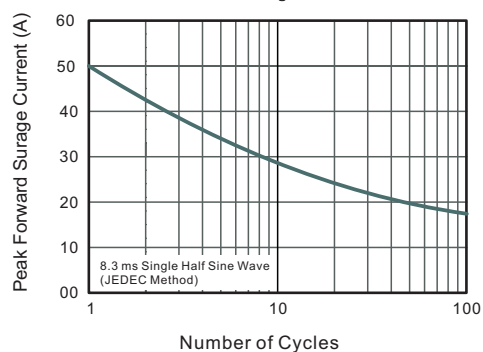
**Fig.3 Typical Instantaneous Forward Characteristics**



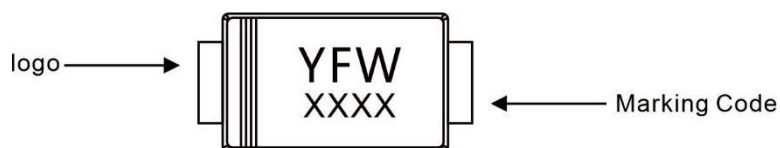
**Fig.4 Typical Junction Capacitance**



**Fig.5 Maximum Non-Repetitive Peak Forward Surge Current**



## Marking Diagram



## Ordering information

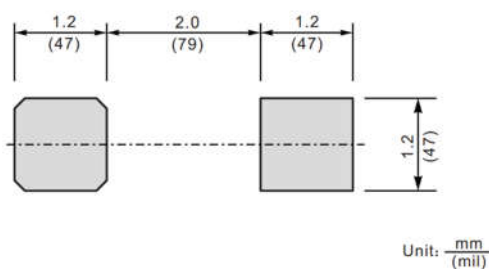
Package	Packing Description	Packing Quantity
SOD-123FL	Tape/Reel, 7" reel	3000PCS/Reel 120000PCS/Carton

## Package Dimensions

### SOD-123FL

Dim.	Millimeter(mm)		mil	
	Min.	Max.	Min.	Max.
A	0.9	1.3	35	43
C	0.12	0.20	4.7	7.9
D	2.6	2.9	102	114
E	1.7	1.9	67	75
e	0.8	1.1	31	43
g	0.7	0.9	28	35
HE	3.5	3.8	138	150
∠	7°			

## The recommended mounting pad size



## Disclaimer

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