

# US1JW

## SURFACE MOUNT ULTRAFAST RECOVERY RECTIFIER Forward Current - 1 A

### FEATURES

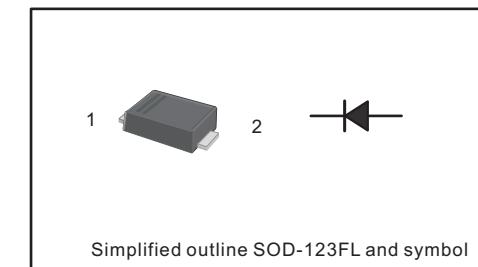
- For surface mounted applications
- Low profile package
- Glass Passivated Chip Junction
- High efficiency
- Lead free in comply with EU RoHS 2011/65/EU directives

### MECHANICAL DATA

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

### PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Simplified outline SOD-123FL and symbol

### Maximum Ratings and Electrical characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

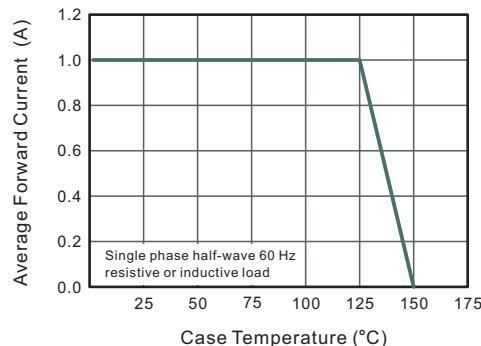
Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20 %.

Parameter	Symbols	US1JW	Units
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	600	V
Maximum RMS voltage	$V_{RMS}$	420	V
Maximum DC Blocking Voltage	$V_{DC}$	600	V
Maximum Average Forward Rectified Current at $T_c = 125^\circ C$	$I_{F(AV)}$	1	A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	$I_{FSM}$	30	A
Maximum Instantaneous Forward Voltage at 1 A	$V_F$	1.65	V
Maximum DC Reverse Current $T_a = 25^\circ C$ at Rated DC Blocking Voltage $T_a = 125^\circ C$	$I_R$	5 100	$\mu A$
Maximum Reverse Recovery Time <sup>(1)</sup>	$t_{rr}$	75	ns
Typical Thermal Resistance <sup>(2)</sup>	$R_{\theta JA}$	85	$^\circ C/W$
Operating and Storage Temperature Range	$T_j, T_{stg}$	-55 ~ +150	°C

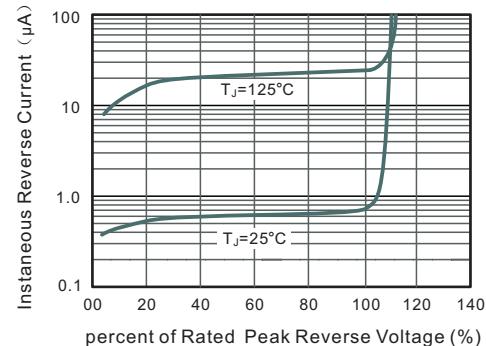
( 1 ) Measured with  $I_F = 0.5 A$ ,  $I_R = 1 A$ ,  $I_{rr} = 0.25 A$ .

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

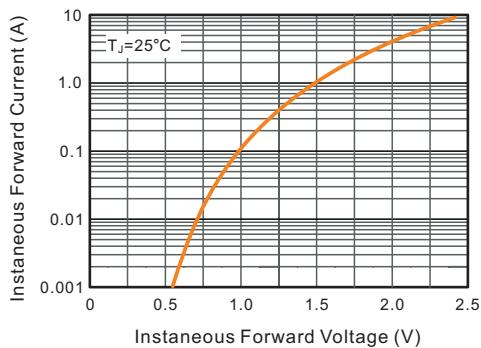
**Fig.1 Forward Current Derating Curve**



**Fig.2 Typical Reverse Characteristics**



**Fig.3 Typical Forward Characteristics**



**Fig.4 Maximum Non-Repetitive Peak Forward Surge Current**

