

Surface Mount Fast Recovery Rectifier

US2MFL SOD-123FL



Cathode  Anode

Features

- Low profile package
- Ideal for automated placement
- Glass passivated chip junction
- Fast switching for fast recovery
- High forward surge capability

Mechanical Data

- Package: SOD-123FL
- Lead: lead solderable per MIL-STD-202, method 208 guaranteed
- Polarity: Color band denotes cathode end

■ Maximum Ratings (T_a=25°C Unless otherwise specified)

Parameter	Symbols	US2MFL		Units
Maximum Repetitive Peak Reverse Voltage	VRRM	1000		V
Maximum RMS voltage	VRMS	700		V
Maximum DC Blocking Voltage	VDC	1000		V
Maximum Average Forward Rectified Current	I _(AV)	2.0		A
Reverse Recovery Time. IF=0.5A, IR=1A, IRR=0.25A	T _{rr}	75		ns
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	I _{FSM}	35		A
I ² t rating for fusing (1ms< t < 8.3ms)	I ² t	3.7		A ² S
Instantaneous Forward Voltage per Diode@TA=25 °C	VF	Typ	Max	V
		1.4	--	
Maximum DC Reverse Current @TA=25 °C at Rated DC Blocking Voltage @TA=125 °C	IR	5 100		μA
Operating and Storage Temperature Range	T _j , T _{stg}	-55 ~ +150		°C
Typical thermal resistance (Note 1)	RθJ-A	30		°C/W

Note: 1. Thermal resistance between junction and ambient and between junction and lead mounted on P.C.B with 3mm*3mm copper pad areas.

RATINGS AND CHARACTERISTICS CURVES (TA = 25 °C unless otherwise noted)

Fig. 1 Forward Current Derating Curve

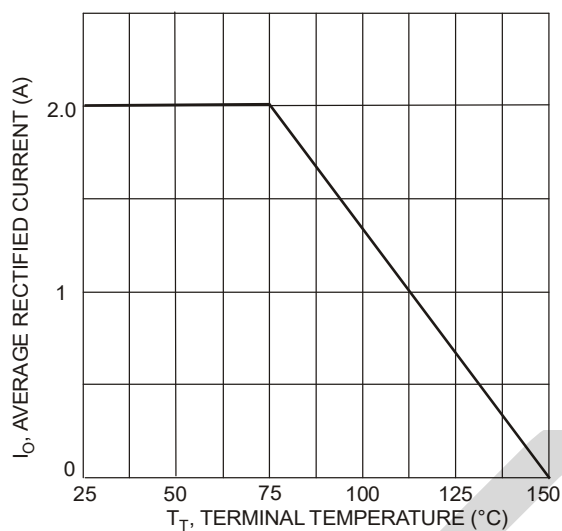


Fig. 2 Typical Forward Characteristics

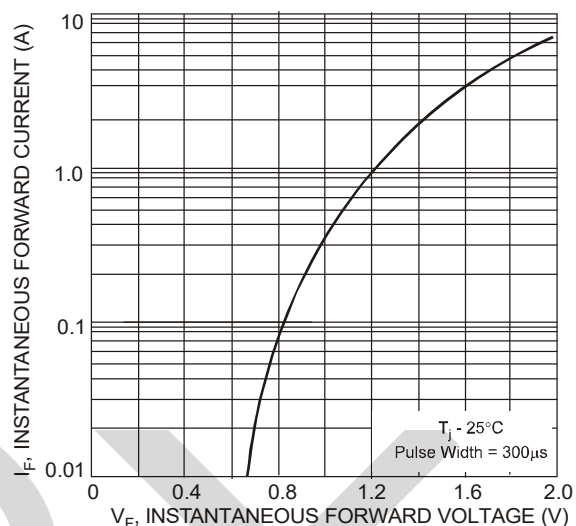


Fig. 3 Forward Surge Current Derating Curve

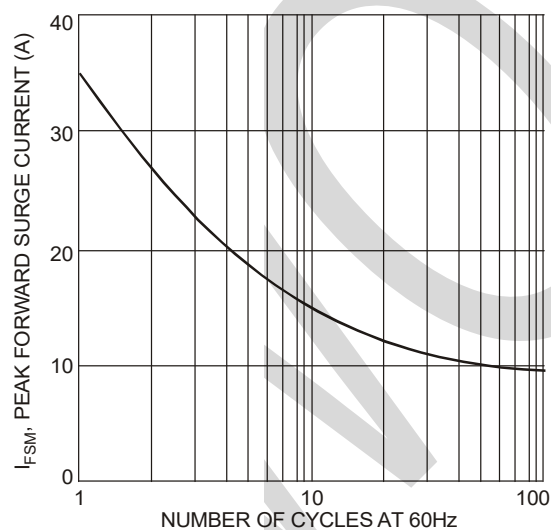
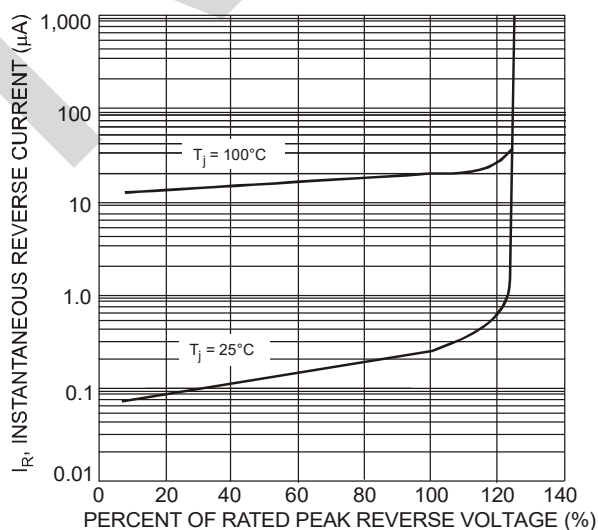
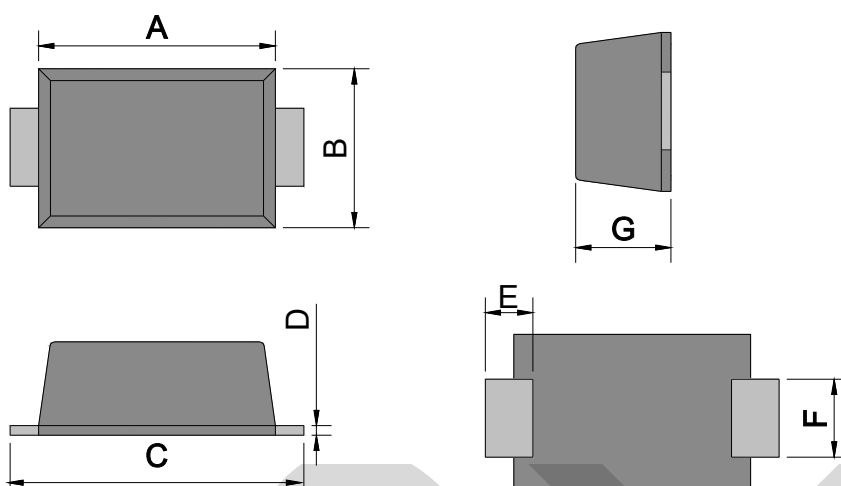


Fig. 4 Typical Reverse Characteristics



PACKAGE OUTLINE DIMENSIONS

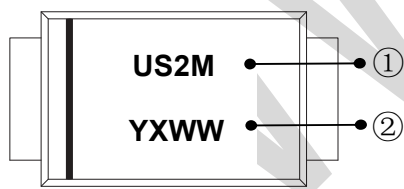
SOD-123FL



SOD-123FL Mechanical Data

UNIT		A	B	C	D	E	F	G
mm	max	3.0	2.0	3.95	0.25	0.9	1.2	1.35
	min	2.6	1.6	3.45	0.1	0.3	0.7	0.90
mil	max	118.1	78.7	155.5	9.8	35.4	47.2	53.1
	min	102.4	63.0	135.8	3.93	11.8	27.5	35.4

Marking Information



①Product model :US2MFL Referred to as US2M

②PDC information:

Y X WW

WW:Week code(01 to 53)

X:Internal identification code

Y:Year code(ex:0=2020)