SZCJ

IANGSU CHANGJING ELECTRONICS TECHNOLOGY CO., LTD.

SOD-123FL Plastic-Encapsulate Diodes

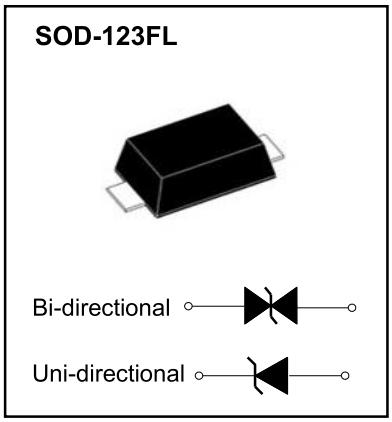
CJSMF SERIES Transient Voltage Suppressor Diodes

Features

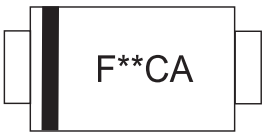
- P_{PP} 200W
- V_{RWM} 5V- 200V

Applications

- Clamping Voltage



Marking



Cathode Band:for uni-directional products only
F**CA = Device code, **=Voltage
C:Bi-directional or not

Limiting Values (Absolute Maximum Rating)

Item	Symbol	Unit	Conditions	Max
Peak pulse power dissipation	P_{PPM}	W	with a 10/1000us waveform	200
Peak pulse current(note 1)	I_{PPM}	A	with a 10/1000us waveform	See Next Table
Power dissipation	P_D	W	On infinite heat sink at T_L=75℃	1.0
Peak forward surge current	I_{FSM}	A	8.3 ms single half sine-wave uni-directional only (note 2)	20
Operating junction and storage temperature range	T_J,T_{STG}	℃		-55 to +150

Electrical Characteristics（T_a=25℃ Unless otherwise specified）

Item	Symbol	Unit	Conditions	Max
Maximum instantaneous forward Voltage	V_F	V	at 25A for uni-directional only	3.5
Thermal resistance	$R_{\theta JL}$	℃/W	junction to lead T_L=50℃	100
	$R_{\theta JA}$	℃/W	junction to ambient T_A=25℃	200

Notes:

(1) Non-repetitive current pulse, per Fig. 3 and derated above TA= 25℃per Fig.2
(2) 8.3ms single half sine-wave or equivalent square wave, duty cycle=4 pulses per minutes maximum

Electrical Characteristics (T_A=25℃ unless otherwise noted)

Part Number		Device Marking Code		Breakdown Voltage VBR@IT		Test Current	Max Reverse Leakage @VRWM	Reverse Standoff Voltage	Max Peak Pulse Current(1)	Max Clamping Voltage @Ipp
UNI	BI	UNI	BI	Min.(V)	Max.(V)	IT(mA)	IR(uA)	V_{RWM}(V)	IPP(A)	Vc(V)
CJSMF5.0A	CJSMF5.0CA	F5.0A	F5.0CA	6.40	7.00	10	800	5	21.8	9.2
CJSMF6.0A	CJSMF6.0CA	F6.0A	F6.0CA	6.67	7.37	10	800	6	19.4	10.3
CJSMF6.5A	CJSMF6.5CA	F6.5A	F6.5CA	7.22	7.98	10	500	6.5	17.9	11.2
CJSMF7.0A	CJSMF7.0CA	F7.0A	F7.0CA	7.78	8.60	10	200	7	16.7	12
CJSMF7.5A	CJSMF7.5CA	F7.5A	F7.5CA	8.33	9.21	1	100	7.5	15.5	12.9
CJSMF8.0A	CJSMF8.0CA	F8.0A	F8.0CA	8.89	9.83	1	50	8	14.7	13.6
CJSMF8.5A	CJSMF8.5CA	F8.5A	F8.5CA	9.44	10.40	1	20	8.5	13.9	14.4
CJSMF9.0A	CJSMF9.0CA	F9.0A	F9.0CA	10.00	11.10	1	10	9	13	15.4
CJSMF10A	CJSMF10CA	F10A	F10CA	11.10	12.30	1	1	10	11.8	17
CJSMF11A	CJSMF11CA	F11A	F11CA	12.20	13.50	1	1	11	11	18.2
CJSMF12A	CJSMF12CA	F12A	F12CA	13.30	14.70	1	1	12	10.1	19.9
CJSMF13A	CJSMF13CA	F13A	F13CA	14.40	15.90	1	1	13	9.3	21.5
CJSMF14A	CJSMF14CA	F14A	F14CA	15.60	17.20	1	1	14	8.6	23.2
CJSMF15A	CJSMF15CA	F15A	F15CA	16.70	18.50	1	1	15	8.2	24.4
CJSMF16A	CJSMF16CA	F16A	F16CA	17.80	19.70	1	1	16	7.7	26.0
CJSMF17A	CJSMF17CA	F17A	F17CA	18.90	20.90	1	1	17	7.3	27.6
CJSMF18A	CJSMF18CA	F18A	F18CA	20.00	22.10	1	1	18	6.9	29.2
CJSMF20A	CJSMF20CA	F20A	F20CA	22.20	24.50	1	1	20	6.2	32.4
CJSMF22A	CJSMF22CA	F22A	F22CA	24.40	26.90	1	1	22	5.7	35.5
CJSMF24A	CJSMF24CA	F24A	F24CA	26.70	29.50	1	1	24	5.2	38.9
CJSMF26A	CJSMF26CA	F26A	F26CA	28.90	31.90	1	1	26	4.8	42.1
CJSMF28A	CJSMF28CA	F28A	F28CA	31.10	34.40	1	1	28	4.4	45.4
CJSMF30A	CJSMF30CA	F30A	F30CA	33.30	36.80	1	1	30	4.2	48.4
CJSMF33A	CJSMF33CA	F33A	F33CA	36.70	40.60	1	1	33	3.8	53.3
CJSMF36A	CJSMF36CA	F36A	F36CA	40.00	44.20	1	1	36	3.5	58.1
CJSMF40A	CJSMF40CA	F40A	F40CA	44.40	49.10	1	1	40	3.1	64.5
CJSMF43A	CJSMF43CA	F43A	F43CA	47.80	52.80	1	1	43	2.9	69.4
CJSMF45A	CJSMF45CA	F45A	F45CA	50.00	55.30	1	1	45	2.8	72.7
CJSMF48A	CJSMF48CA	F48A	F48CA	53.30	58.90	1	1	48	2.6	77.4
CJSMF51A	CJSMF51CA	F51A	F51CA	56.70	62.70	1	1	51	2.5	82.4

Electrical Characteristics (T_A=25℃ unless otherwise noted)

Part Number		Device Marking Code		Breakdown Voltage VBR@IT		Test Current	Max Reverse Leakage @VRWM	Reverse Standoff Voltage	Max Peak Pulse Current(1)	Max Clamping Voltage @Ipp
UNI	BI	UNI	BI	Min.(V)	Max.(V)	IT(mA)	IR(uA)	V_{RWM}(V)	IPP(A)	Vc(V)
CJSMF54A	CJSMF54CA	F54A	F54CA	60.00	66.30	1	1	54	2.3	87.1
CJSMF58A	CJSMF58CA	F58A	F58CA	64.40	71.20	1	1	58	2.2	93.6
CJSMF60A	CJSMF60CA	F60A	F60CA	66.70	73.70	1	1	60	2.1	96.8
CJSMF64A	CJSMF64CA	F64A	F64CA	71.10	78.60	1	1	64	2.0	103.0
CJSMF70A	CJSMF70CA	F70A	F70CA	77.80	86.00	1	1	70	1.8	113.0
CJSMF75A	CJSMF75CA	F75A	F75CA	83.30	92.10	1	1	75	1.7	121.0
CJSMF78A	CJSMF78CA	F78A	F78CA	86.70	95.80	1	1	78	1.6	126.0
CJSMF85A	CJSMF85CA	F85A	F85CA	94.40	104.00	1	1	85	1.5	137.0
CJSMF90A	CJSMF90CA	F90A	F90CA	100.00	111.00	1	1	90	1.4	146.0
CJSMF100A	CJSMF100CA	F100A	F100CA	111.00	123.00	1	1	100	1.3	162.0
CJSMF110A	CJSMF110CA	F110A	F110CA	122.00	135.00	1	1	110	1.1	177.0
CJSMF120A	CJSMF120CA	F120A	F120CA	133.00	147.00	1	1	120	1.0	193.0
CJSMF130A	CJSMF130CA	F130A	F130CA	144.00	159.00	1	1	130	0.96	209.0
CJSMF150A	CJSMF150CA	F150A	F150CA	167.00	185.00	1	1	150	0.82	243.0
CJSMF160A	CJSMF160CA	F160A	F160CA	178.00	197.00	1	1	160	0.77	259.0
CJSMF170A	CJSMF170CA	F170A	F170CA	189.00	209.00	1	1	170	0.73	275.0
CJSMF180A	CJSMF180CA	F180A	F180CA	200.00	220.00	1	1	180	0.69	291.0
CJSMF190A	CJSMF190CA	F190A	F190CA	211.00	232.00	1	1	190	0.65	307.0
CJSMF200A	CJSMF200CA	F200A	F200CA	224.00	247.00	1	1	200	0.62	324.0

Notes:

(1) Waveform of CJSMF5A -CJSMF200CA are defined as per fig.3

Typical Characteristics

Figure 1. Peak Pulse Power Rating Curve

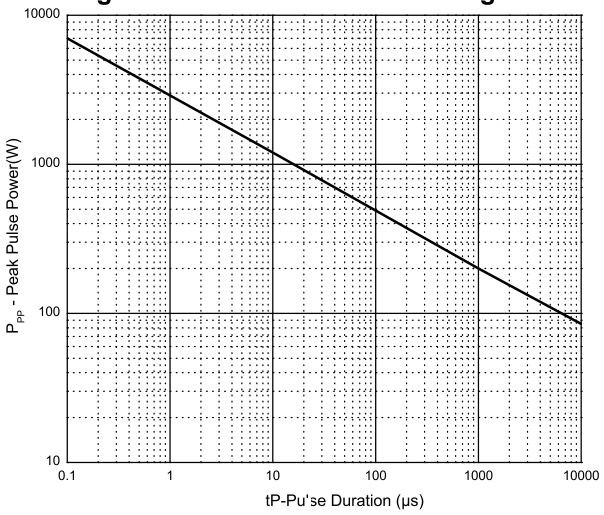


Figure 2. Pulse Derating Curve

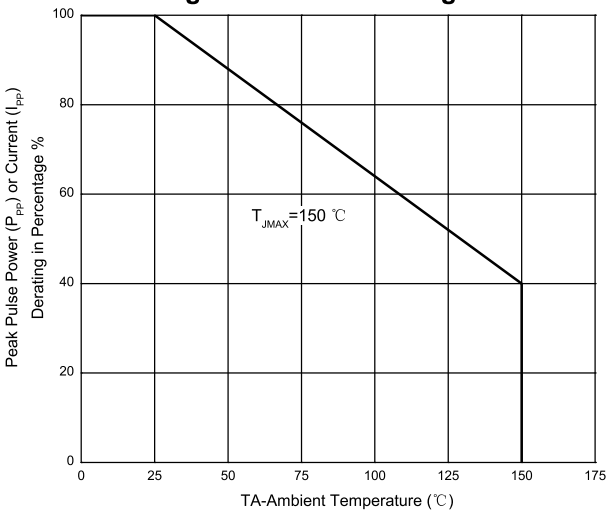


Figure 3. Pulse Waveform

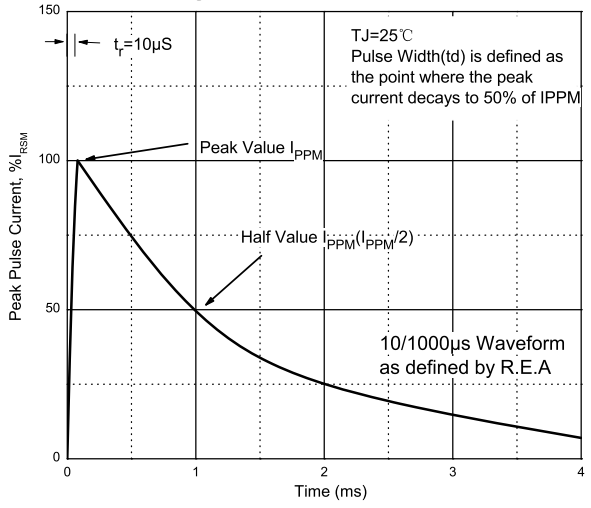


Figure 4. Typical Junction Capacitance

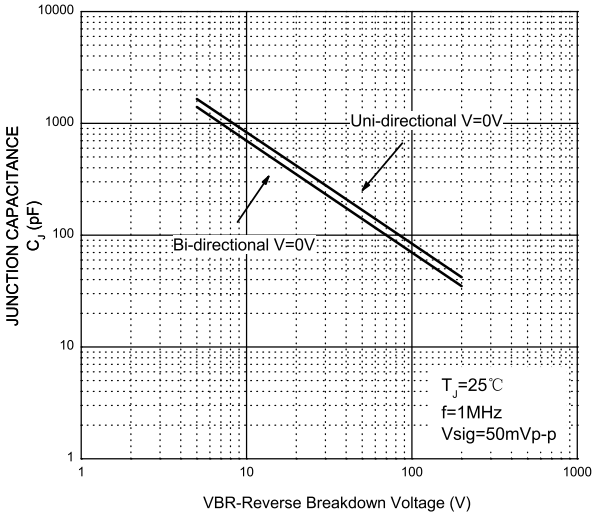


Figure 5. Steady State Power Dissipation Derating Curve

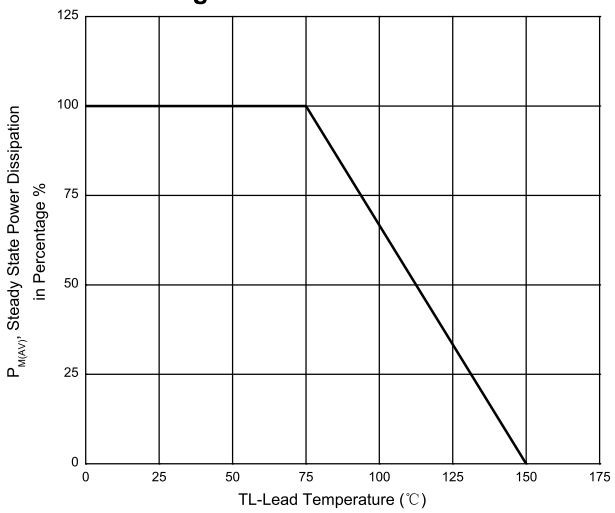
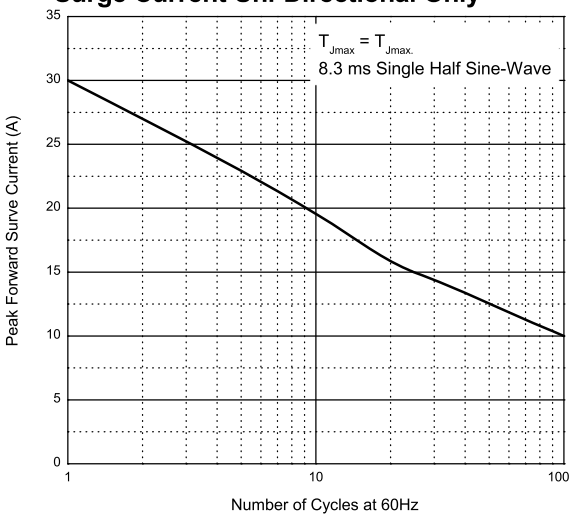
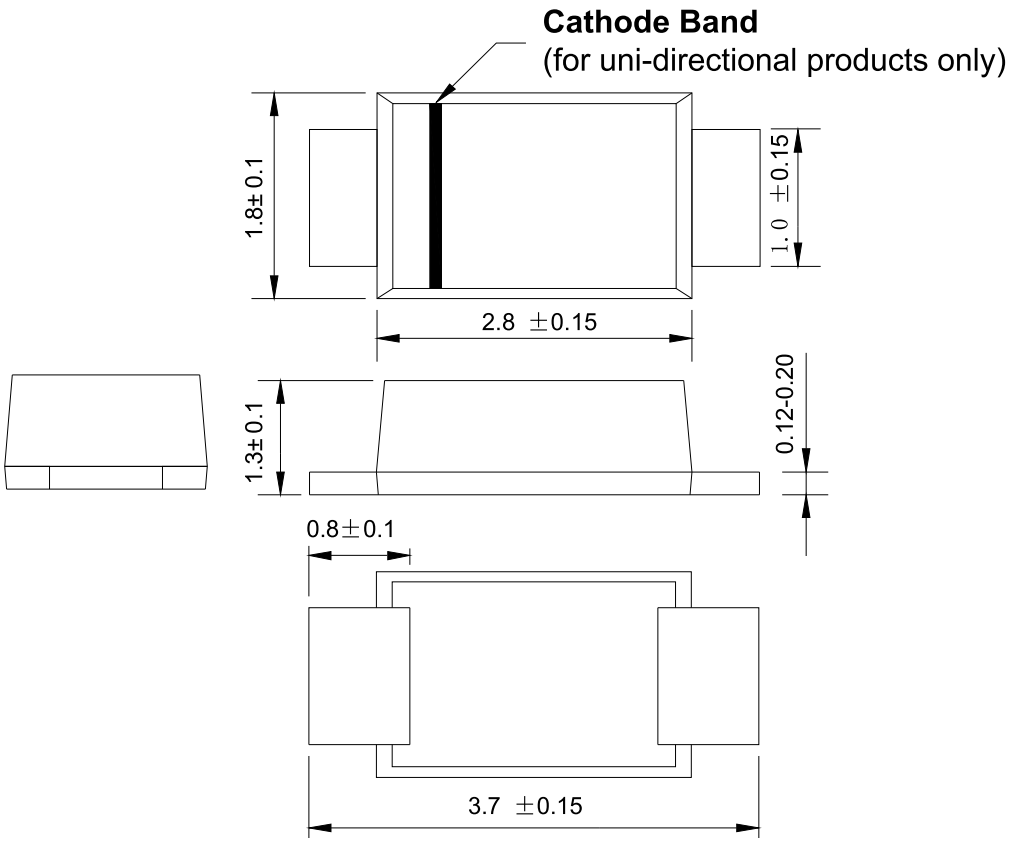


Figure 6. Maximum Non-Repetitive Forward Surge Current Uni-Directional Only

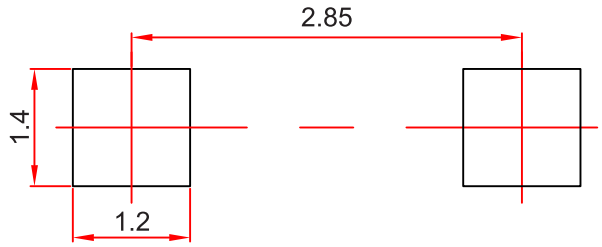


SOD-123FL Package Outline Dimensions



Dimensions in millimeters

SOD-123FL Suggested Pad Layout



Note:
1.Controlling dimension:in millimeters.
2.General tolerance:± 0.05mm.
3.The pad layout is for reference purposes only.

NOTICE
JSCJ reserves the right to make modifications,enhancements,improvements,corrections or other changes without further notice to any product herein.JSCJ does not assume any liability arising out of the application or use of any product described herein.

Reel Taping Specifications For Surface Mount Devices-SOD-123FL

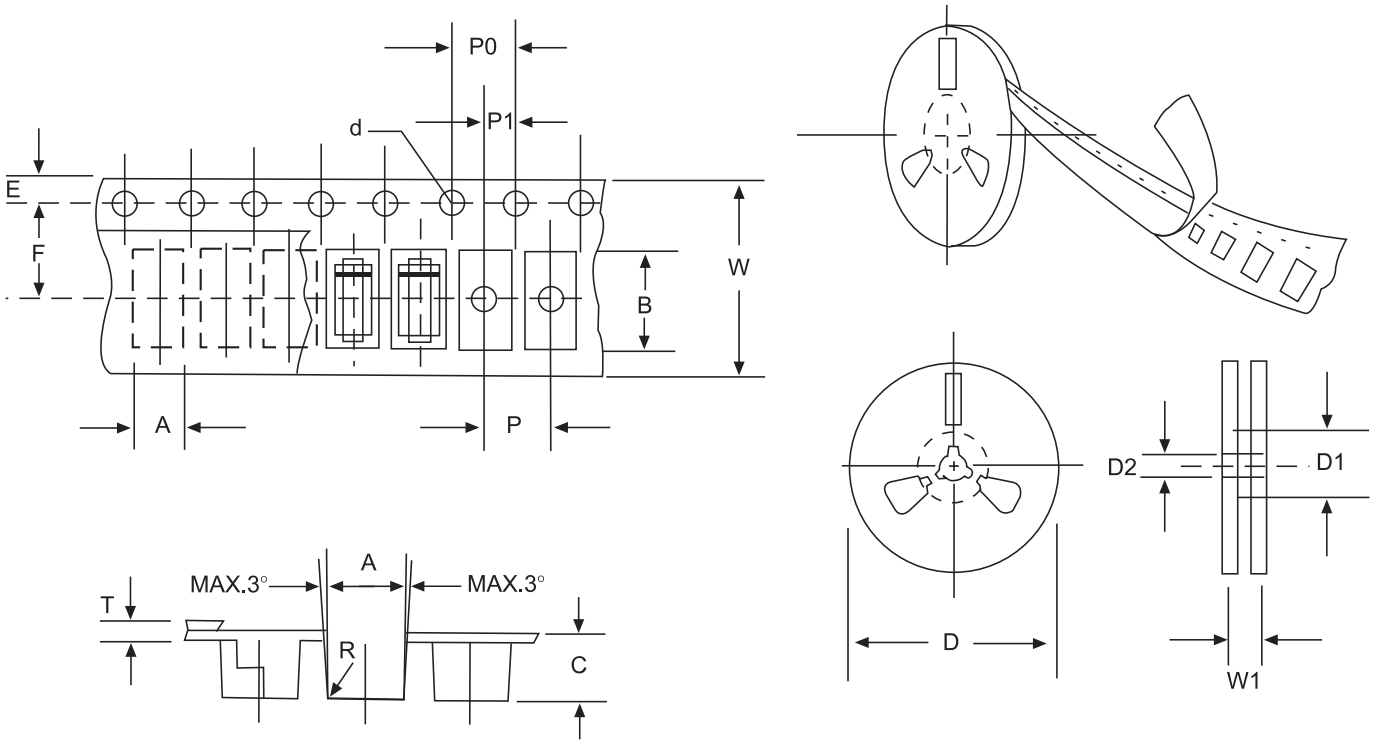


FIG:CONFIGURATION OF SURFACE MOUNTED DEVICES TAPING

ITEM	SYMBOL	SOD-123FLmm(inch)
Carrier width	A	2.05±0.1(0.081±0.004)
Carrier length	B	3.95±0.1(0.156±0.004)
Carrier depth	C	1.45±0.1(0.057±0.004)
Sprocket hole	d	1.55±0.05(0.061±0.002)
Reel outside diameter	D	178±2.0(7.0±0.079)
Reel inner diameter	D1	54±1.0(2.13±0.039)
Feed hole diameter	D2	13±0.5(0.512±0.020)
Stroket hole position	E	1.75±0.1(0.069±0.004)
Punch hole position	F	3.50±0.1(0.138±0.002)
Punch hole pitch	P	4.0±0.1(0.157±0.004)
Sprocket hole pitch	P0	4.0±0.1(0.157±0.004)
Embossment center	P1	2.0±0.1(0.079±0.004)
Totall tape thickness	T	0.21±0.25(0.008±0.010)
Tape width	W	8.0±0.2(0.315±0.008)
Reel width	W1	10.0±2.0(0.394±0.079)

NOTE:Devices are packed in accordance with EIA standard RS-481-A and specification given above.