SZCJ

IIANGSU CHANGJING ELECTRONICS TECHNOLOGY CO., LTD.

SOD-123FL Plastic-Encapsulate Diodes

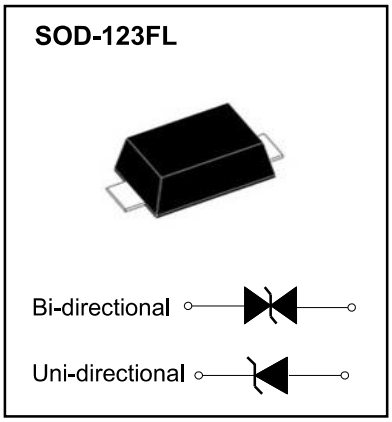
CJSMF SERIES Transient Voltage Suppressor Diodes

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
XXXX=Data Code

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 =50℃	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

Typical Characteristics

Part Number		Device Marking Code		Breakdown Voltage VBR@IT		Test Current	Max Reverse Leakage @V_{RWM}	Reverse Standoff Voltage	Max Peak Pulse Current(1)	Max Clamping Voltage @I_{PP}
UNI	BI	UNI	BI	Min.(V)	Max.(V)	IT(mA)	I_R (uA)	V_{RWM}(V)	I_{PP}(A)	V_C(V)
CJSMF5.0A	CJSMF5.0CA	F5.0A XXXX	F5.0CA XXXX	6.40	7.00	10	800	5	21.8	9.2
CJSMF6.0A	CJSMF6.0CA	F6.0A XXXX	F6.0CA XXXX	6.67	7.37	10	800	6	19.4	10.3
CJSMF6.5A	CJSMF6.5CA	F6.5A XXXX	F6.5CA XXXX	7.22	7.98	10	500	6.5	17.9	11.2
CJSMF7.0A	CJSMF7.0CA	F7.0A XXXX	F7.0CA XXXX	7.78	8.60	10	200	7	16.7	12.0
CJSMF7.5A	CJSMF7.5CA	F7.SA XXXX	F7.5CA XXXX	8.33	9.21	1	100	7.5	15.5	12.9
CJSMF8.0A	CJSMF8.0CA	F8.0A XXXX	F8.0CA XXXX	8.89	9.83	1	50	8	14.7	13.6
CJSMF8.5A	CJSMF8.5CA	F8.SA XXXX	F8.5CA XXXX	9.44	10.40	1	20	8.5	13.9	14.4
CJSMF9.0A	CJSMF9.0CA	F9.0A XXXX	F9.0CA XXXX	10.00	11.10	1	10	9	13.0	15.4
CJSMF10A	CJSMF10CA	F10A XXXX	F10CA XXXX	11.10	12.30	1	1	10	11.8	17.0
CJSMF11A	CJSMF11CA	F11A XXXX	F11CA XXXX	12.20	13.50	1	1	11	11.0	18.2
CJSMF12A	CJSMF12CA	F12A XXXX	F12CA XXXX	13.30	14.70	1	1	12	10.1	19.9
CJSMF13A	CJSMF13CA	F13A XXXX	F13CA XXXX	14.40	15.90	1	1	13	9.3	21.5
CJSMF14A	CJSMF14CA	F14A XXXX	F14CA XXXX	15.60	17.20	1	1	14	8.6	23.2
CJSMF15A	CJSMF15CA	F15A XXXX	F15CA XXXX	16.70	18.50	1	1	15	8.2	24.4
CJSMF16A	CJSMF16CA	F16A XXXX	F16CA XXXX	17.80	19.70	1	1	16	7.7	26.0
CJSMF17A	CJSMF17CA	F17A XXXX	F17CA XXXX	18.90	20.90	1	1	17	7.3	27.6
CJSMF18A	CJSMF18CA	F18A XXXX	F18CA XXXX	20.00	22.10	1	1	18	6.9	29.2
CJSMF20A	CJSMF20CA	F20A XXXX	F20CA XXXX	22.20	24.50	1	1	20	6.2	32.4
CJSMF22A	CJSMF22CA	F22A XXXX	F22CA XXXX	24.40	26.90	1	1	22	5.7	35.5
CJSMF24A	CJSMF24CA	F24A XXXX	F24CA XXXX	26.70	29.50	1	1	24	5.2	38.9

Typical Characteristics

Part Number		Device Marking Code		Breakdown Voltage VBR@IT		Test Current	Max Reverse Leakage @V_{RWM}	Reverse Standoff Voltage	Max Peak Pulse Current(1)	Max Clamping Voltage @I_{PP}
UNI	BI	UNI	BI	Min.(V)	Max.(V)	IT(mA)	I_R (uA)	V_{RWM}(V)	I_{PP}(A)	V_C(V)
CJSMF26A	CJSMF26CA	F26A XXXX	F26CA XXXX	28.90	31.90	1	1	26	4.8	42.1
CJSMF28A	CJSMF28CA	F28A XXXX	F26CA XXXX	31.10	34.40	1	1	28	4.4	45.4
CJSMF30A	CJSMF30CA	F30A XXXX	F30CA XXXX	33.30	36.80	1	1	30	4.2	48.4
CJSMF33A	CJSMF33CA	F33A XXXX	F33CA XXXX	36.70	40.60	1	1	33	3.8	53.3
CJSMF36A	CJSMF36CA	F36A XXXX	F36CA XXXX	40.00	44.20	1	1	36	3.5	58.1
CJSMF40A	CJSMF40CA	F40A XXXX	F40CA XXXX	44.40	49.10	1	1	40	3.1	64.5
CJSMF43A	CJSMF43CA	F43A XXXX	F43CA XXXX	47.80	52.80	1	1	43	2.9	69.4
CJSMF45A	CJSMF45CA	F45A XXXX	F45CA XXXX	50.00	55.30	1	1	45	2.8	72.7
CJSMF48A	CJSMF48CA	F48A XXXX	F48CA XXXX	53.30	58.90	1	1	48	2.6	774.0
CJSMF51A	CJSMF51CA	F51A XXXX	F51CA XXXX	56.70	62.70	1	1	51	2.5	82.4
CJSMF54A	CJSMF54CA	F54A XXXX	F54CA XXXX	60.00	66.30	1	1	54	2.3	87.1
CJSMF58A	CJSMF58CA	F58A XXXX	F58CA XXXX	64.40	71.20	1	1	58	2.2	93.6
CJSMF60A	CJSMF60CA	F60A XXXX	F60CA XXXX	66.70	73.70	1	1	60	2.1	96.8
CJSMF64A	CJSMF64CA	F64A XXXX	F64CA XXXX	71.10	78.60	1	1	64	2.0	103.0
CJSMF70A	CJSMF70CA	F70A XXXX	F70CA XXXX	77.80	86.00	1	1	70	1.8	113.0
CJSMF75A	CJSMF75CA	F75A XXXX	F75CA XXXX	83.30	92.10	1	1	75	1.7	121.0
CJSMF78A	CJSMF78CA	F78A XXXX	F78CA XXXX	86.70	95.80	1	1	78	1.6	126.0
CJSMF85A	CJSMF85CA	F85A XXXX	F85CA XXXX	94.40	104.00	1	1	85	1.5	137.0
CJSMF90A	CJSMF90CA	F90A XXXX	F90CA XXXX	100.00	111.00	1	1	90	1.4	146.0
CJSMF26A	CJSMF26CA	F26A XXXX	F26CA XXXX	28.90	31.90	1	1	26	4.8	42.1

Typical Characteristics

Part Number		Device Marking Code		Breakdown Voltage VBR@IT		Test Current	Max Reverse Leakage @V_{RWM}	Reverse Standoff Voltage	Max Peak Pulse Current(1)	Max Clamping Voltage @I_{PP}
UNI	BI	UNI	BI	Min.(V)	Max.(V)	IT(mA)	I_R (uA)	V_{RWM}(V)	I_{PP}(A)	V_C(V)
CJSMF100A	CJSMF100CA	F100A XXXX	F100CA XXXX	111.00	123.00	1	1	100	1.3	162.0
CJSMF110A	CJSMF110CA	F110A XXXX	F110CA XXXX	122.00	135.00	1	1	110	1.1	177.0
CJSMF120A	CJSMF120CA	F120A XXXX	F120CA XXXX	133.00	147.00	1	1	120	1.0	193.0
CJSMF130A	CJSMF130CA	F130A XXXX	F130CA XXXX	144.00	159.00	1	1	130	1.0	209.0
CJSMF150A	CJSMF150CA	F150A XXXX	F150CA XXXX	167.00	185.00	1	1	150	0.8	243.0
CJSMF160A	CJSMF160CA	F160A XXXX	F160CA XXXX	178.00	197.00	1	1	160	0.8	259.0
CJSMF170A	CJSMF170CA	F170A XXXX	F170CA XXXX	189.00	209.00	1	1	170	0.7	275.0
CJSMF180A	CJSMF180CA	F180A XXXX	F180CA XXXX	200.00	220.00	1	1	180	0.7	291.0
CJSMF190A	CJSMF190CA	F190A XXXX	F190CA XXXX	211.00	232.00	1	1	190	0.7	307.0
CJSMF200A	CJSMF200CA	F200A XXXX	F200CA XXXX	224.00	247.00	1	1	200	0.6	324.0

Notes:

(1) Waveform of CJSMF5.0A -CJSMF200CA are defined as per fig.3

Typical Characteristics

Figure 1. Peak Pulse Power Rating Curve

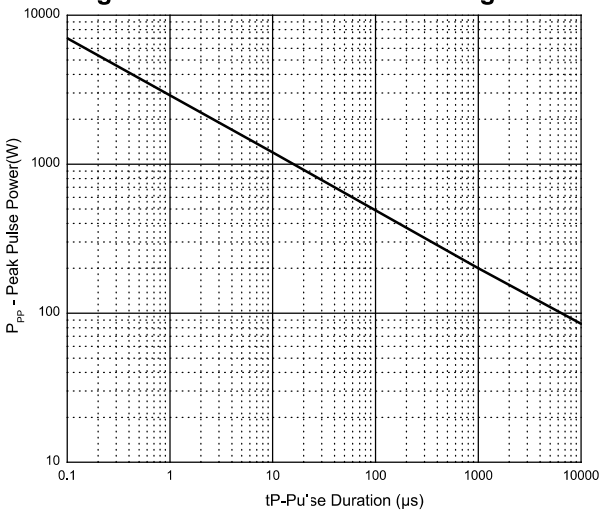


Figure 2. Pulse Derating Curve

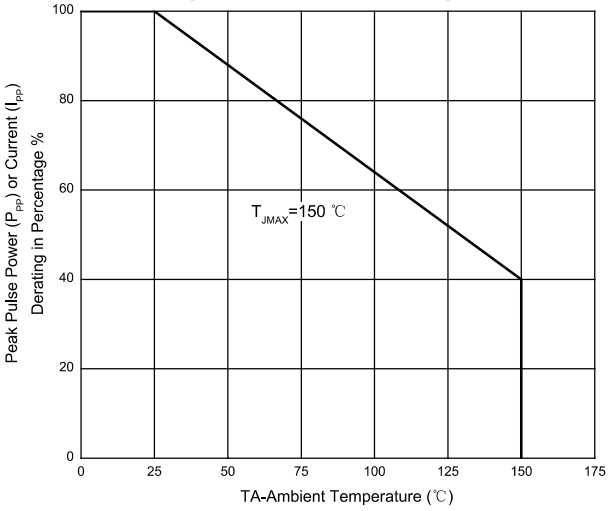


Figure 3. Pulse Waveform

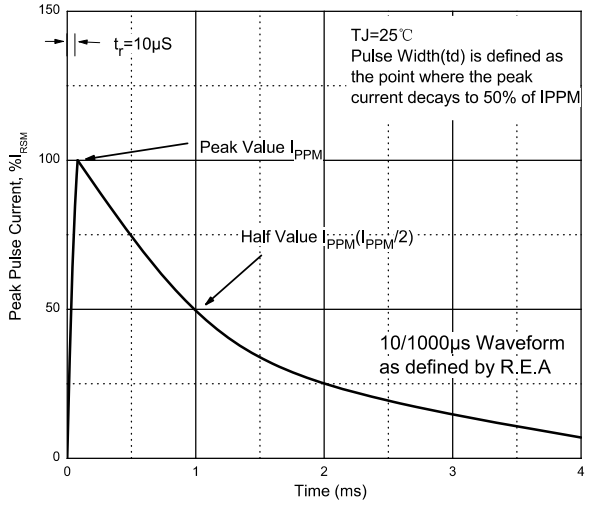


Figure 4. Typical Junction Capacitance

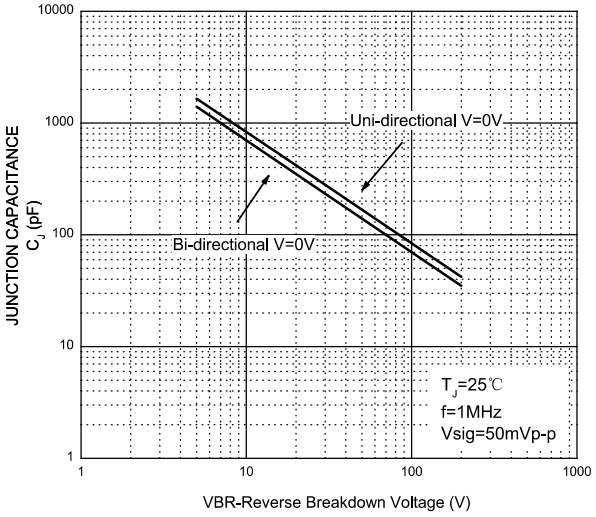


Figure 5. Steady State Power Dissipation Derating Curve

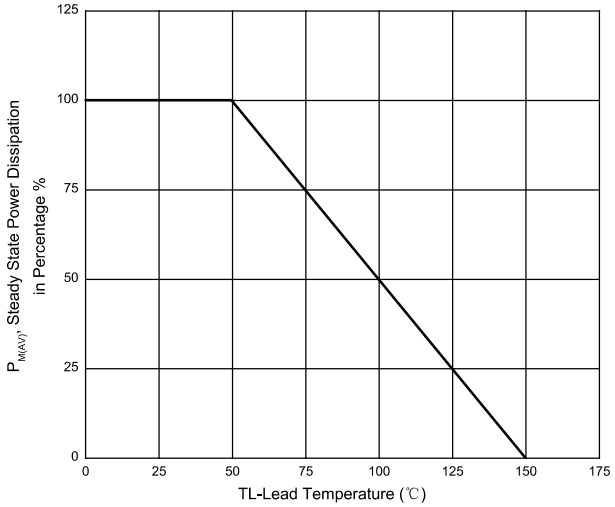
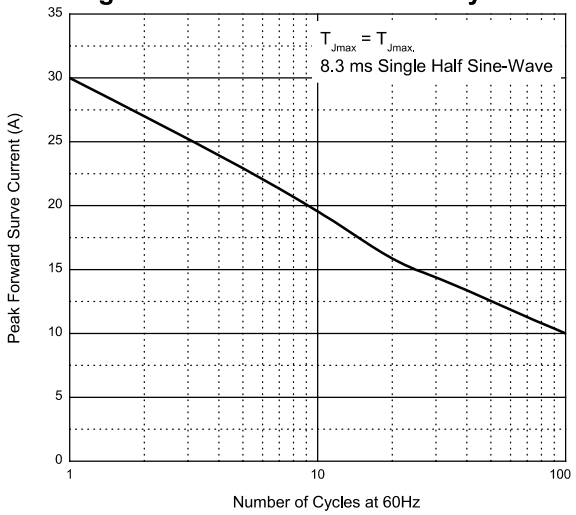
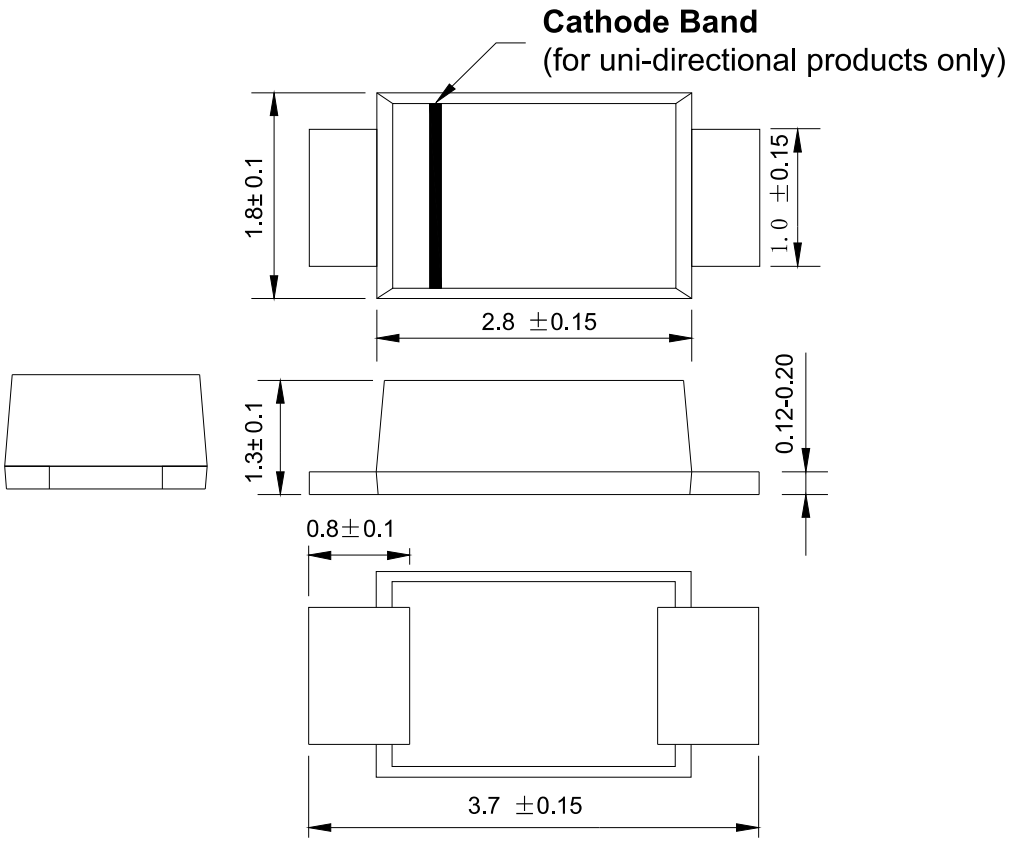


Figure 6. Maximum Non-Repetitive Forward Surge Current Uni-Directional Only

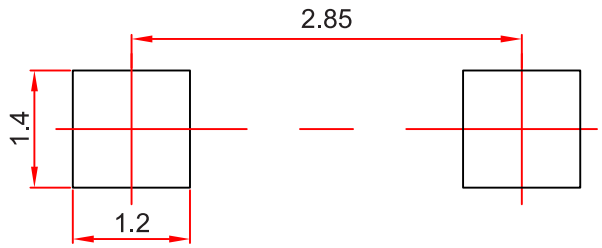


SOD-123FL Package Outline Dimensions



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

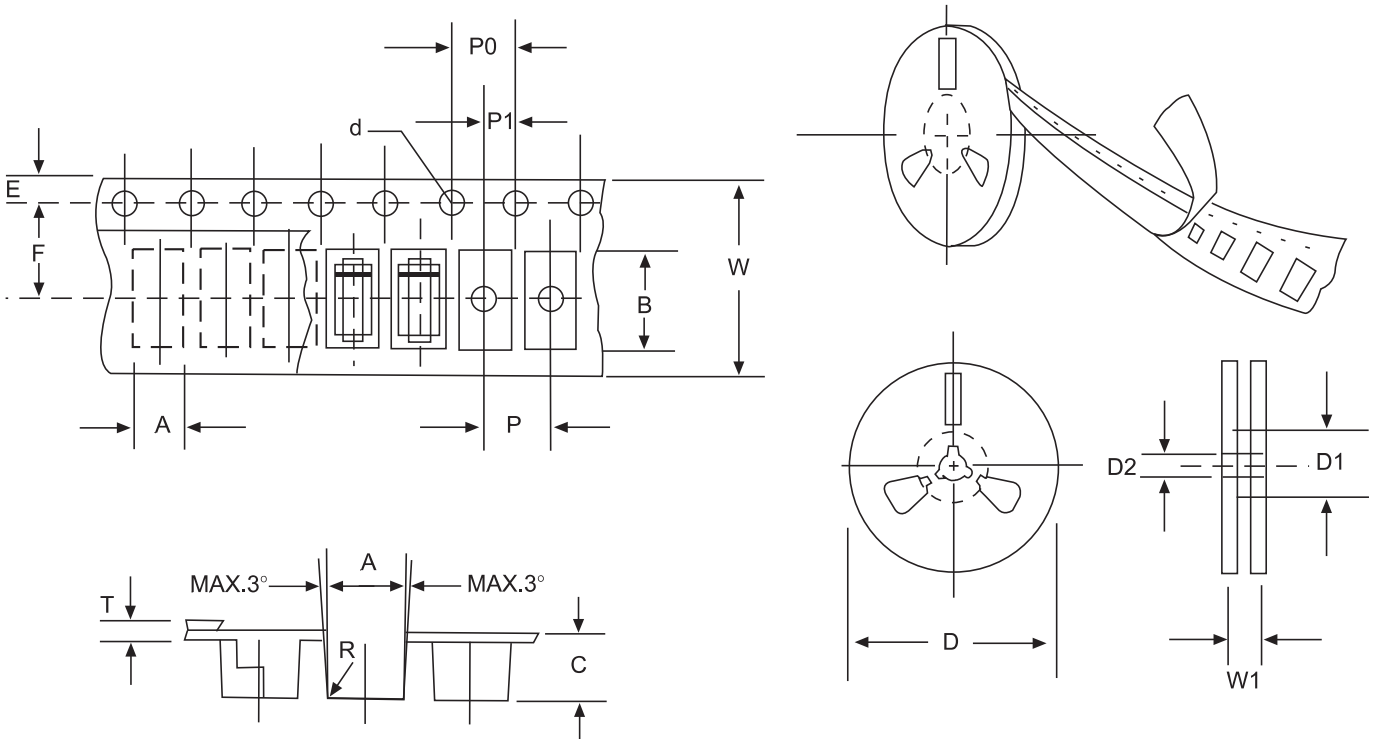


FIG:CONFIGURATION OF SURFACE MOUNTED DEVICES TAPING

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)
Strocket 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.