

SOD-123FL Plastic-Encapsulate Diodes

DSS12 THRU DSS120 Schottky Rectifier Diodes

Features

- $I_{F(AV)}$ 1A
- V_{RRM} 20V-200V
- High surge current capability
- Polarity: Color band denotes cathode

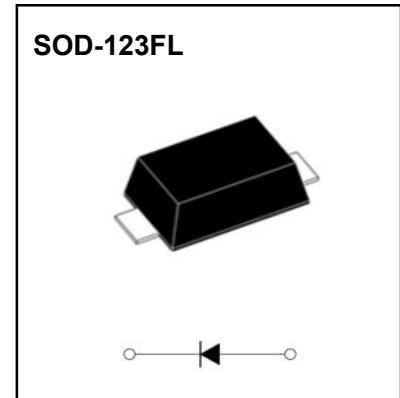
Applications

- Rectifier

Marking

- S1X

X : From 2 To 20



Limiting Values(Absolute Maximum Rating)

Item	Symbol	Unit	Test Conditions	DSS1								
				2	3	4	5	6	8	10	15	20
Repetitive Peak Reverse Voltage	V _{RRM}	V		20	30	40	50	60	80	100	150	200
Maximum RMS Voltage	V _{RMS}	V		14	21	28	35	42	56	70	105	140
Average Forward Current	I _{F(AV)}	A	60Hz Half-sine wave , Resistance load	1.0								
Surge(Non-repetitive)Forward Current	I _{FSM}	A	60Hz Half-sine wave , 1 cycle, Ta=25℃	30								
Junction Temperature	T _J	℃		-55~+125			-55~+150					
Storage Temperature	T _{STG}	℃		-55 ~ +150								

Electrical Characteristics ($T = 25^{\circ}\text{C}$ Unless otherwise specified)

Item	Symbol	Unit	Test Condition		DSS1							
					2	3	4	5	6	8	10	15
Peak Forward Voltage	V _F	V	I _F =1.0A		0.55		0.70		0.85		0.95	
Peak Reverse Current	I _{RRM1}	mA	V _{RM} =V _{RRM}	T _a =25℃	0.5				0.1			
			T _a =100℃	10				5.0				
Thermal Resistance(Typical)	R _{θJ-A}	℃/ W	Between junction and ambient		68							
	R _{θJ-L}		Between junction and lead		10							
Juction Capacitance (Typical)	Cj	pF	Measured at 1MHZ and Applied Reverse Voltage of 4.0 V.D.C		40		30		26		20	

Notes:

Thermal resistance from junction to ambient and from junction to lead mounted on FR4 PCB double sided copper mini pad

Typical Characteristics

FIG.1: FORWARD CURRENT DERATING CURVE

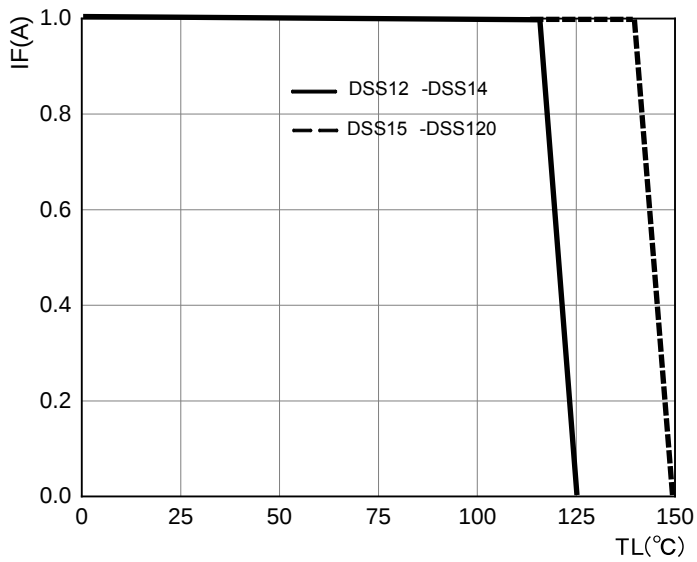
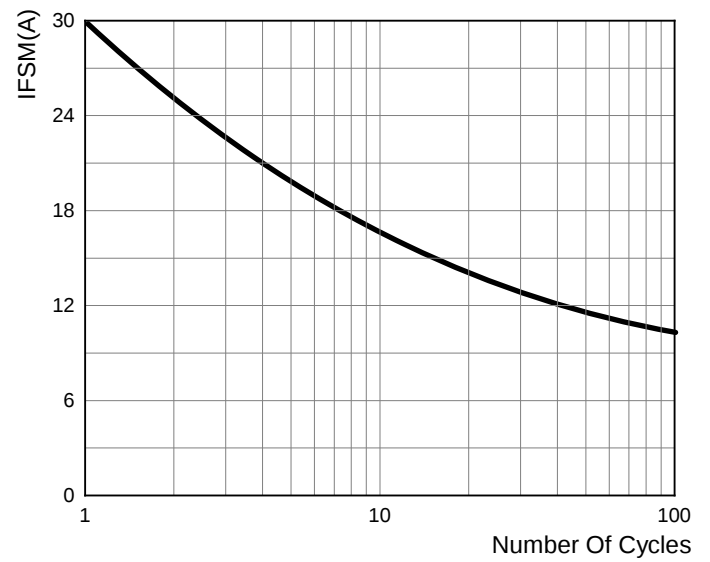
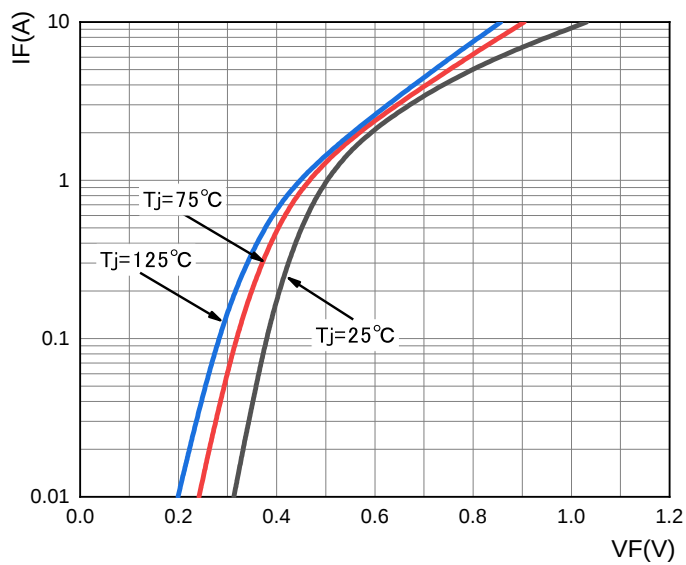


FIG 2: MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



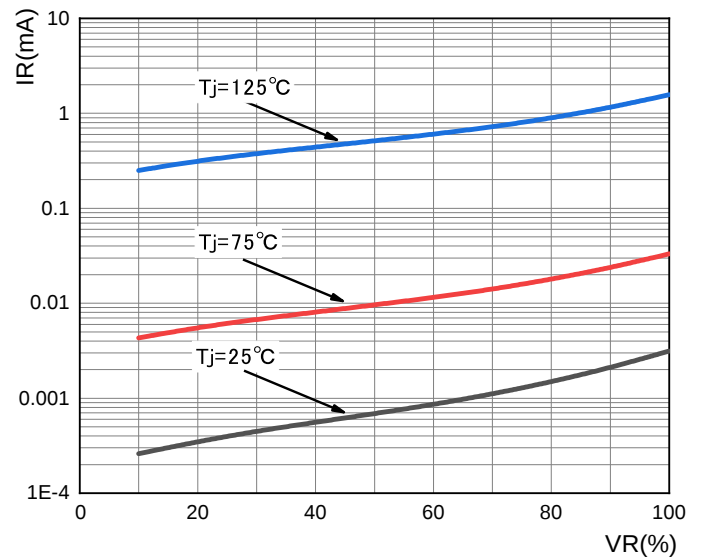
DSS12-SS14

FIG.3:TYPICAL FORWARD CHARACTERISTICS



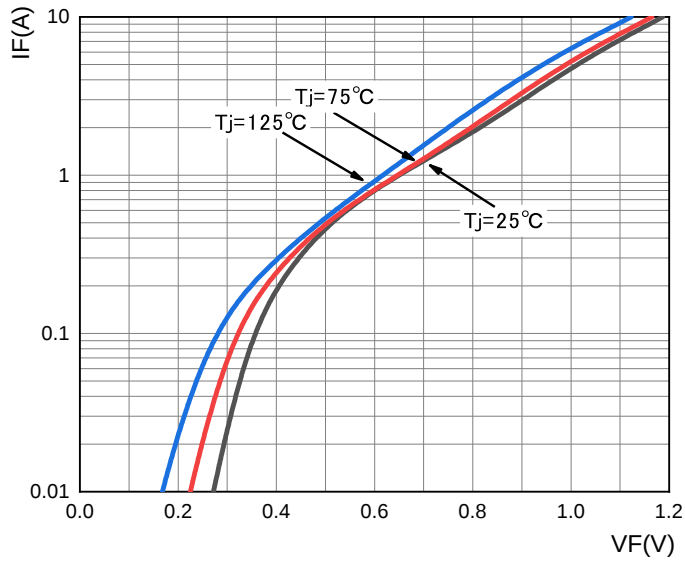
DSS12-SS14

FIG.4: TYPICAL REVERSE CHARACTERISTICS



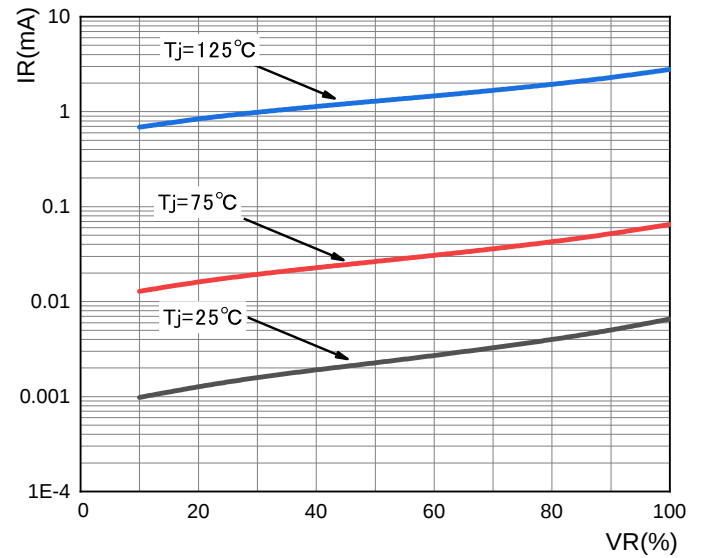
DSS15-DSS16

FIG.5: TYPICAL FORWARD CHARACTERISTICS



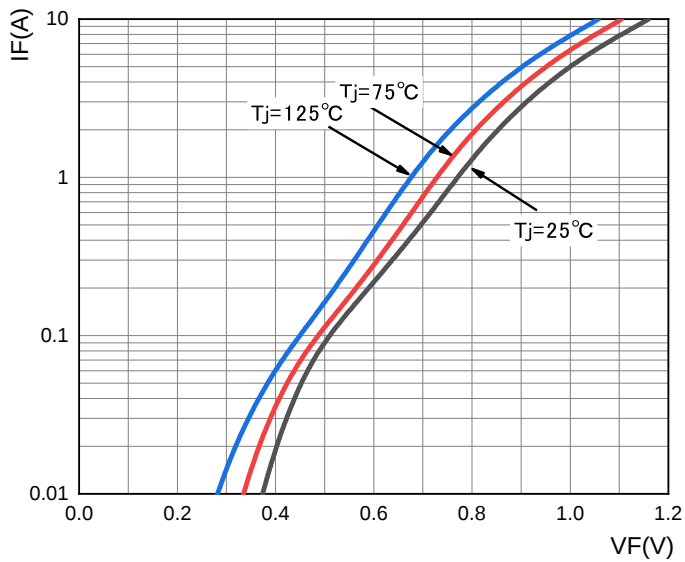
DSS15-DSS16

FIG.6: TYPICAL REVERSE CHARACTERISTICS



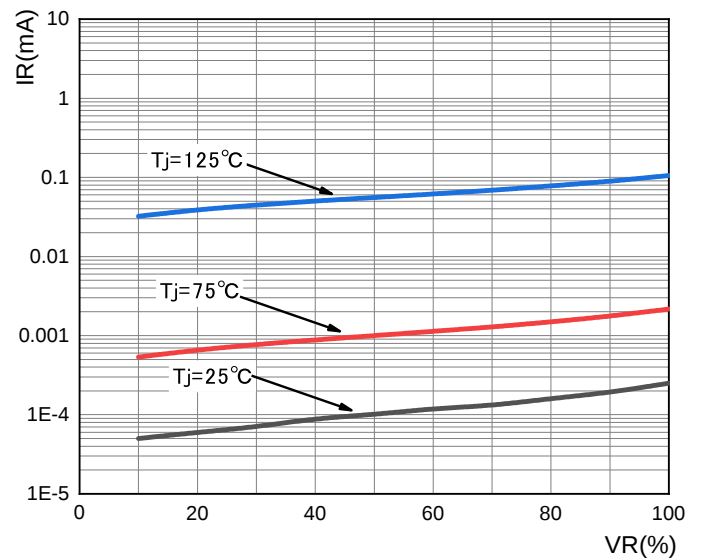
DSS18-DSS110

FIG.7: TYPICAL FORWARD CHARACTERISTICS



DSS18-DSS110

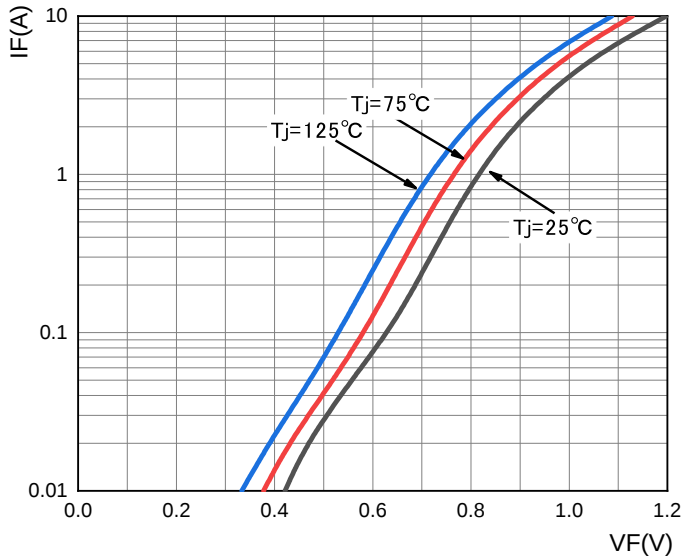
FIG.8: TYPICAL REVERSE CHARACTERISTICS



Typical Characteristics

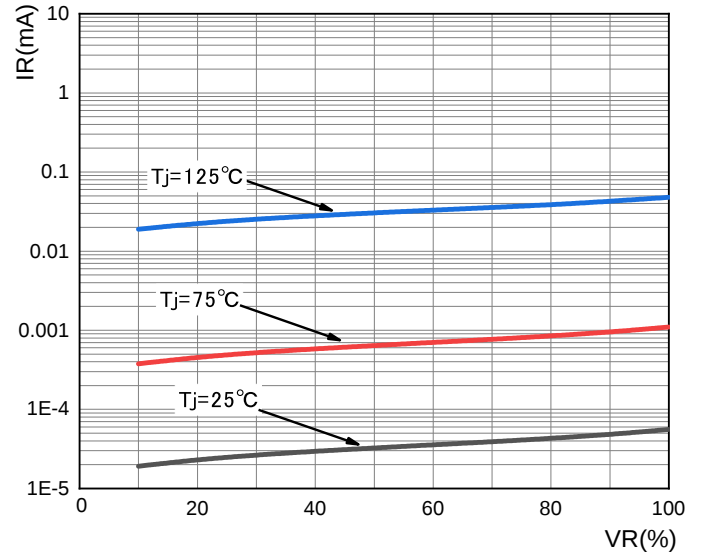
DSS115

FIG.9: TYPICAL FORWARD CHARACTERISTICS



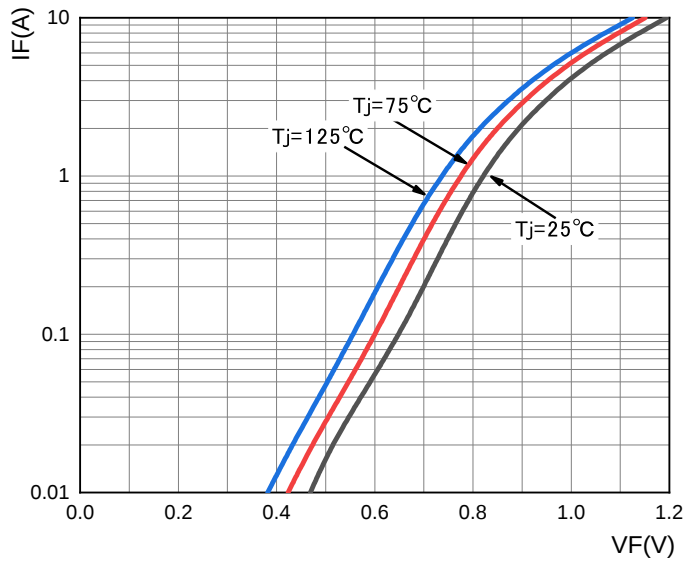
DSS115

FIG.10: TYPICAL REVERSE CHARACTERISTICS



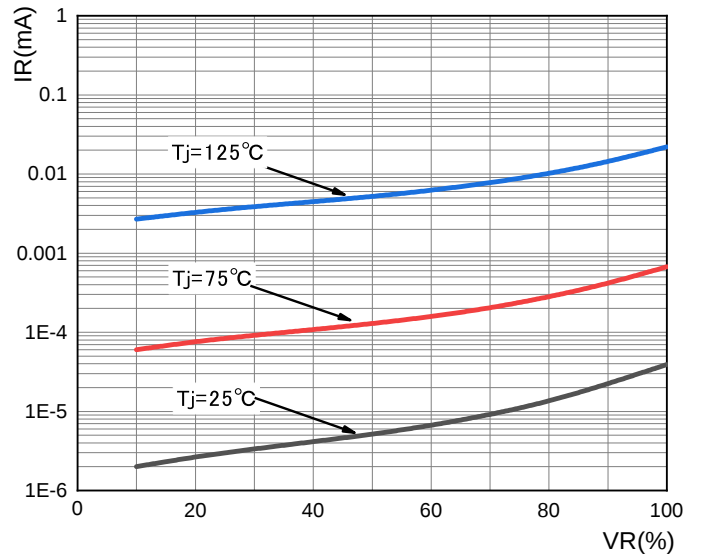
DSS120

FIG.11: TYPICAL FORWARD CHARACTERISTICS

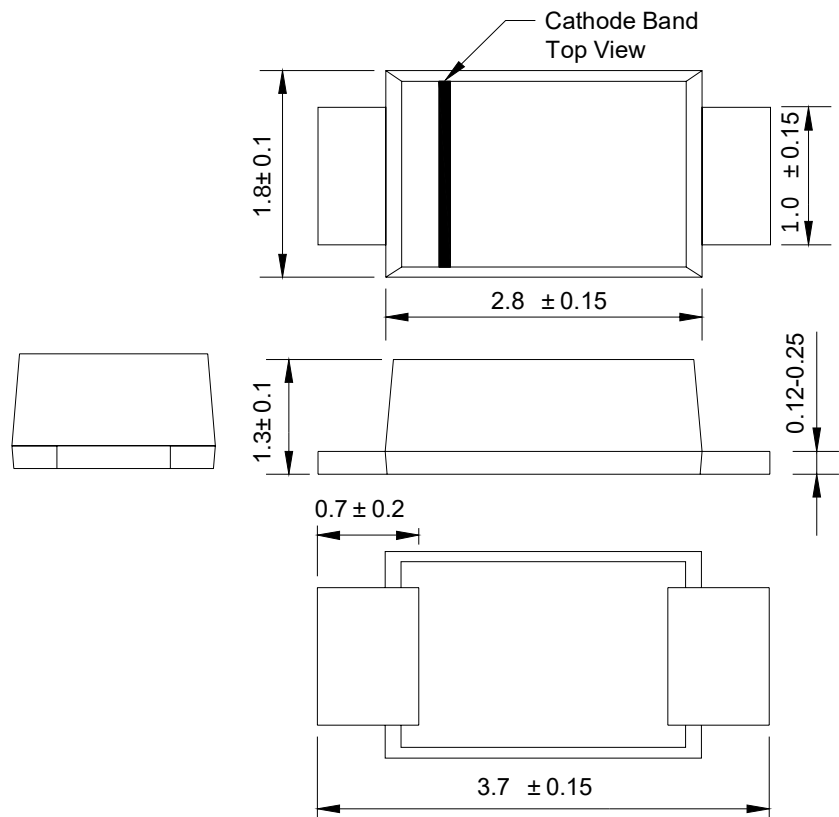


DSS120

FIG.12: TYPICAL REVERSE CHARACTERISTICS

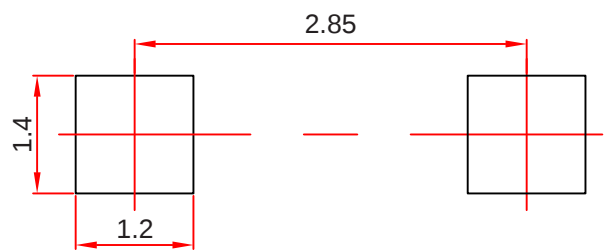


SOD-123FL Package Outline Dimensions



Dimensions in millimeters

SOD-123FL Suggested Pad Layout



- Note:**
- 1. Controlling dimension: in millimeters.
 - 2. General tolerance: ± 0.05 mm.
 - 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

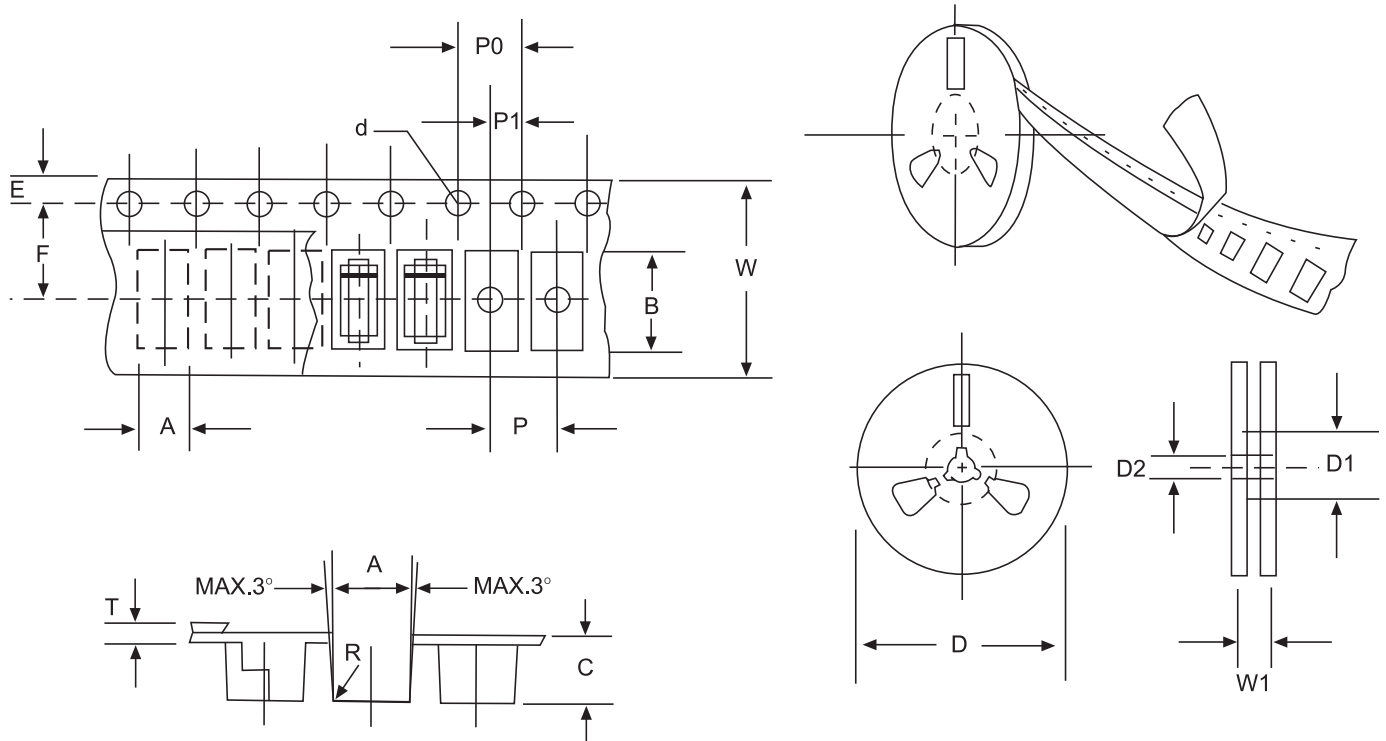


FIG:CONFIGURATION OF SURFACE MOUNTED DEVICES TAPING

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.