SOD-123FL Plastic-Encapsulate Diodes

Schottky Rectifier Diodes

Features:

- $I_{F(AV)}$ 3A
- V_{RRM} 20V-200V
- High surge current capability
- Polarity: Color band denotes cathode

SOD-123FL

Applications:

- Rectifier

Marking

- KWSMD32PL-KWSMD320PL : K32-K320

Limiting Values (Absolute Maximum Rating)

Item	Symbol	Unit	Test Conditions	KWSMD3								
				2PL	3PL	4PL	5PL	6PL	8PL	10PL	15PL	20PL
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，TL=(Fig.1)	3.0								
Surge(Non-repetitive)Forward Current	I_{FSM}	A	60Hz Half-sine wave，1 cycle，Ta=25℃	80								
Junction Temperature	T_J	℃		-55 ~ +150								
Storage Temperature	T_{STG}	℃		-55 ~ +150								

Electrical Characteristics (T=25 ℃Unless otherwise specified)

Item	Symbol	Unit	Test Condition		KWSMD3							
					2PL	3PL	4PL	5PL	6PL	8PL	10PL	15PL	20PL
Peak Forward Voltage	V_{FM}	V	I_{FM}=3.0A		0.55			0.7		0.85		0.95
Peak Reverse Current	I_{RRM1}	mA	$V_{RM}=V_{RRM}$	Ta =25℃	0.5			0.1				
	I_{RRM2}			Ta =100℃	10			5.0				
Thermal Resistance(Typical)	$R_{\theta J-A}$	℃/W	Between junction and ambient		70							
	$R_{\theta J-L}$		Between junction and terminal		25							

Notes:

Thermal resistance from junction to ambient and from junction to lead mo)unted on P.C.B. with 0.2" x 0.2" (5.0 mm x 5.0 mm) copper pad areas

Typical Characteristics

FIG.1: FORWARD CURRENT DERATING CURVE

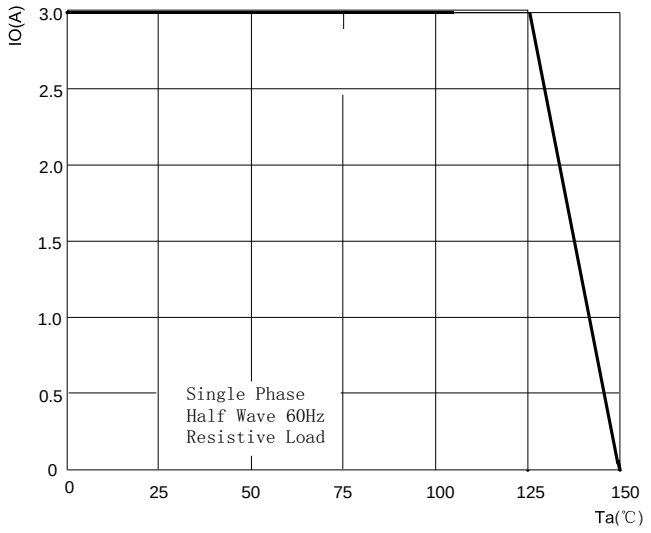


FIG.2: MAXIMUM NON-REPETITIVE FORWARD URGE CURRENT

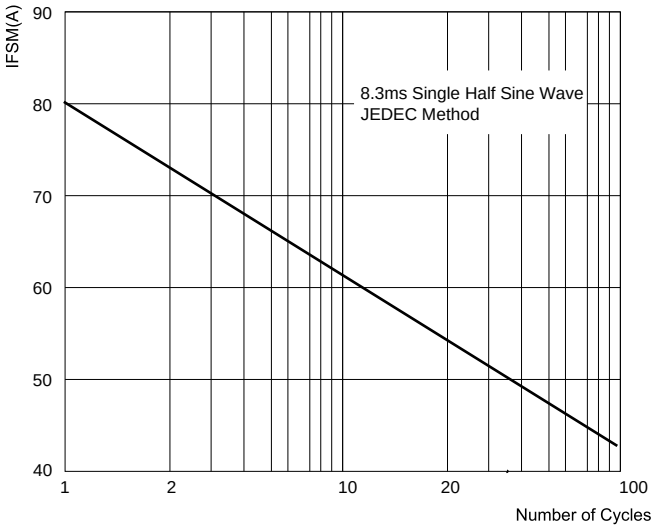


FIG.3: TYPICAL FORWARD CHARACTERISTICS

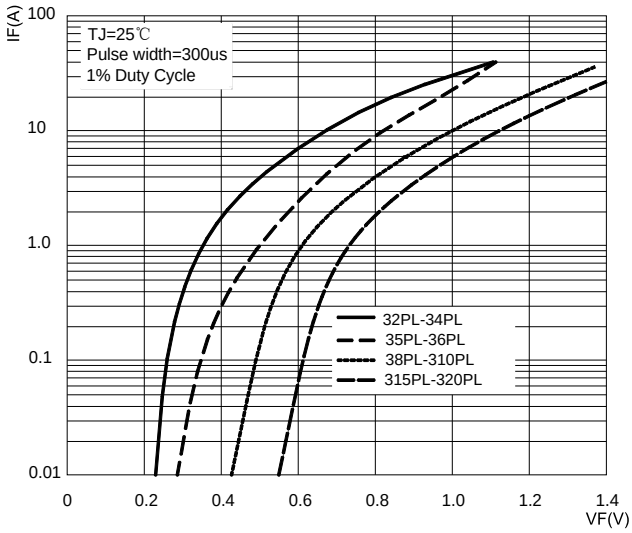


FIG.4：TYPICAL REVERSE CHARACTERISTICS

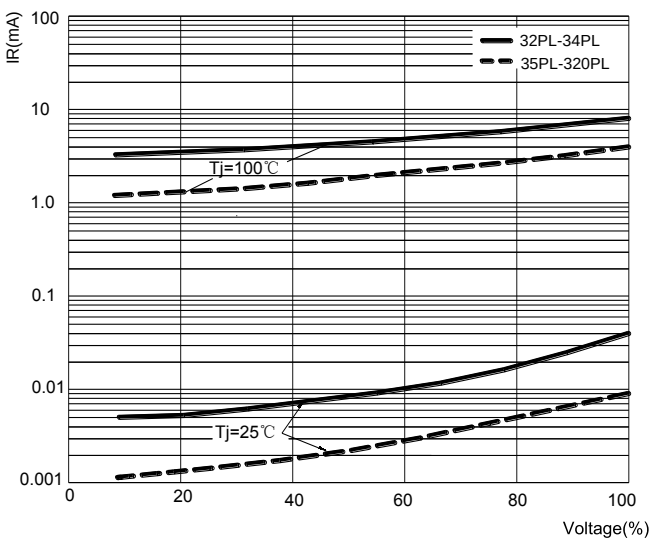
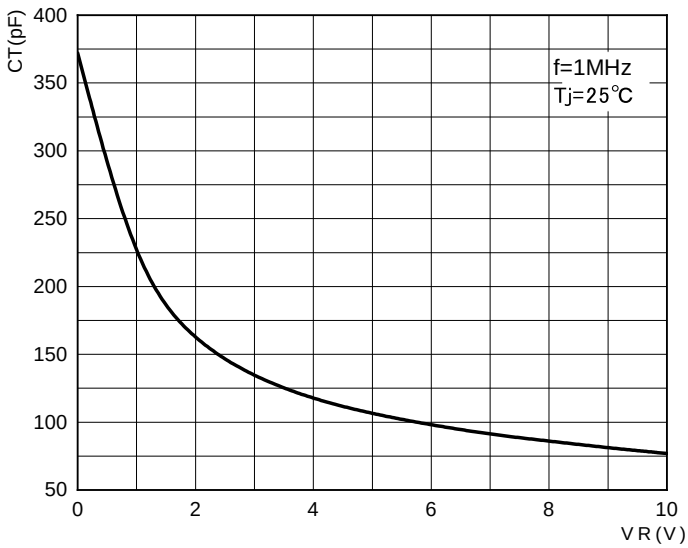
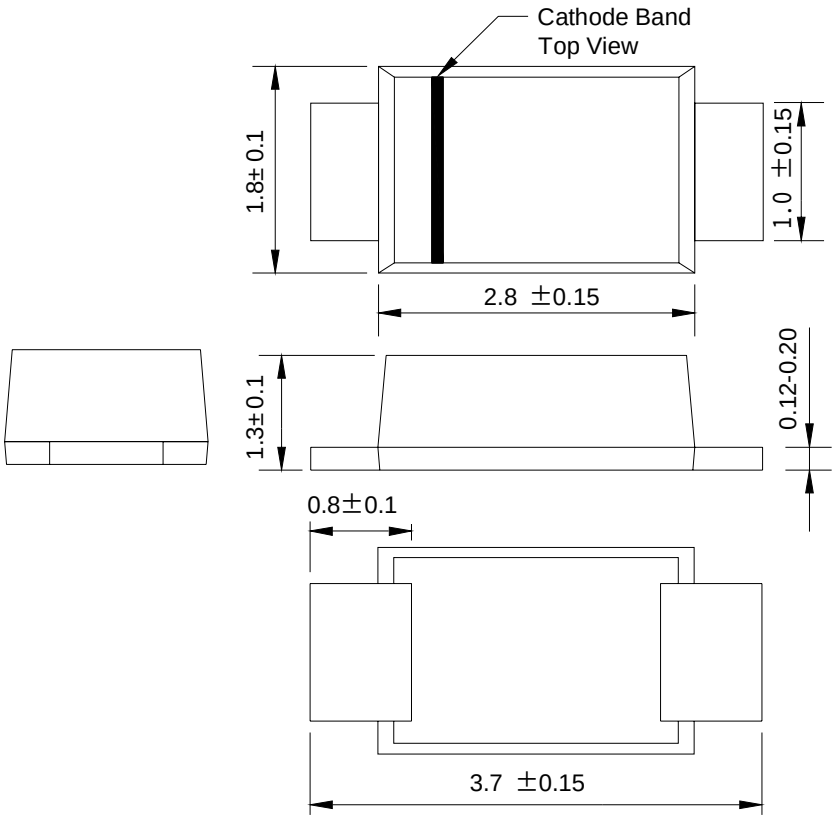


FIG.5: TOTAL CAPACITANCE DERATING CURVE

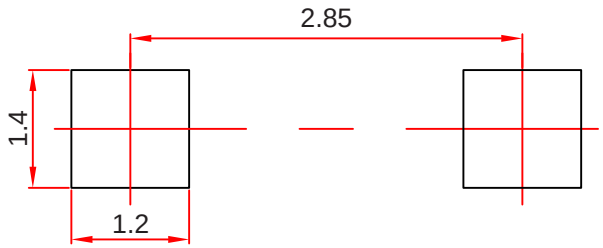


SOD-123FL Package Outline Dimensions



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.

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

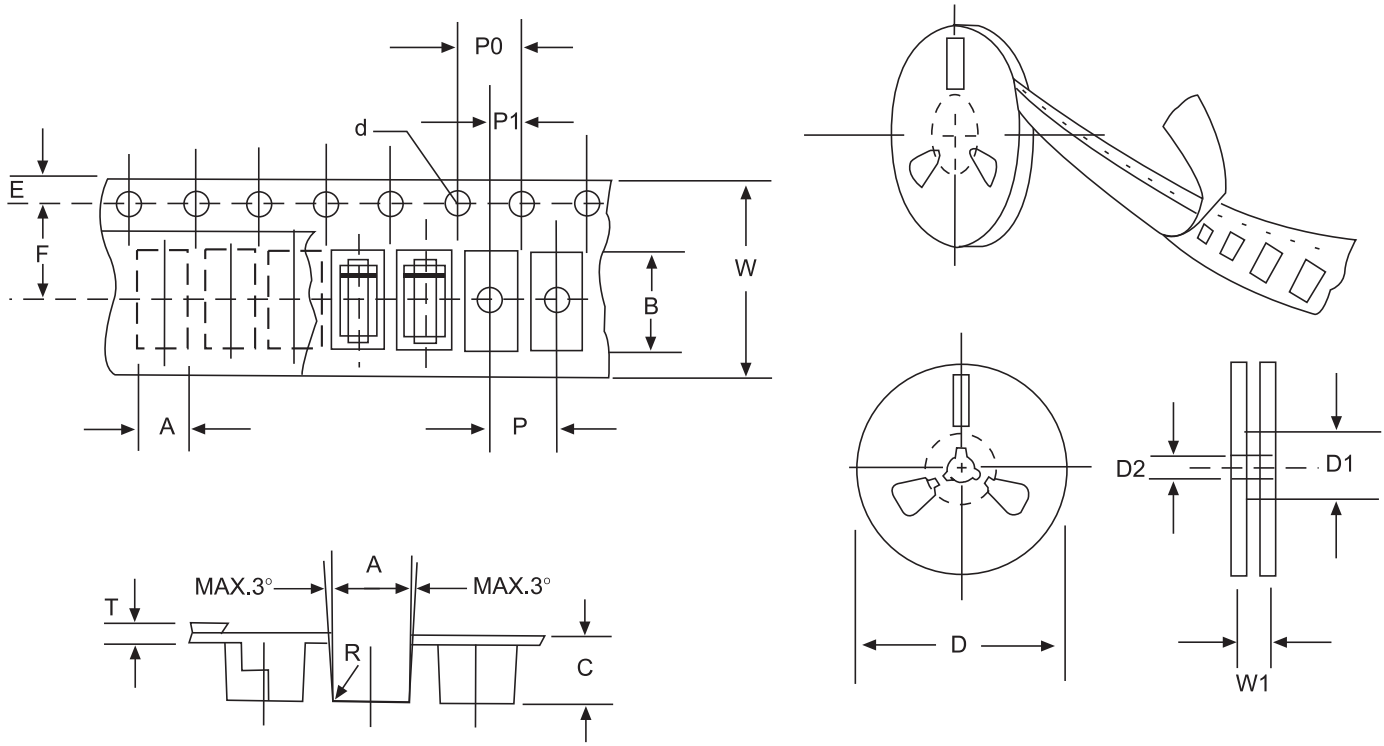


FIG:CONFIGURATION OF SURFACE MOUNTED DEVICES TAPING

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 packde in accordance with EIA standard RS-481-A and specification given above.