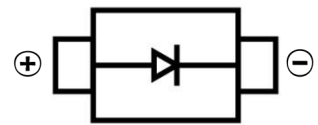


GENERAL PURPOSE RECTIFIER DIODE
FEATURES

- Surface Mount device
- Low Reverse voltage leakage current
- Glass passivated junction
- High forward surge current capability
- Low forward voltage drop


SOD-123FL
MECHANICAL DATA

- Case: SOD-123FL
- Case Material: Molded Plastic. UL flammability
- Classification Rating: 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020
- Weight: 0.0155 grams (approximate)


MAXIMUM RATINGS (T_A = 25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	1000	V
DC Blocking Reverse Voltage	V _R	1000	V
RMS Reverse Voltage	V _{R(RMS)}	700	V
Maximum Average Forward Rectified Current	I _F	1	A
Non-Repetitive Peak Forward Surge Current @t@=8.3ms	I _{FSM}	30	A
Thermal Resistance From Junction To Ambient	R _{θJA}	55	°C/W
Reverse Recovery Time(@I _F =0.5A, I _R =1.0A, I _{RR} =0.25A)	t _{rr}	2.5	uS
Junction Temperature	T _J	-55 ~+150	°C
Storage Temperature	T _{STG}	-65 ~+175	°C

ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise specified)

Parameter	Symbol	Min	Typ	Max	Unit	Conditions
Forward voltage	V _F			1.0	V	I _F =1A
Reverse current	I _R			5	uA	V _R =1000V
Diode capacitance	C _D		15		pF	V _R =4V _{DC} , f=1MHz

GENERAL PURPOSE RECTIFIER DIODE

Typical Characteristics

Fig. 1 - Forward Current Derating Curve

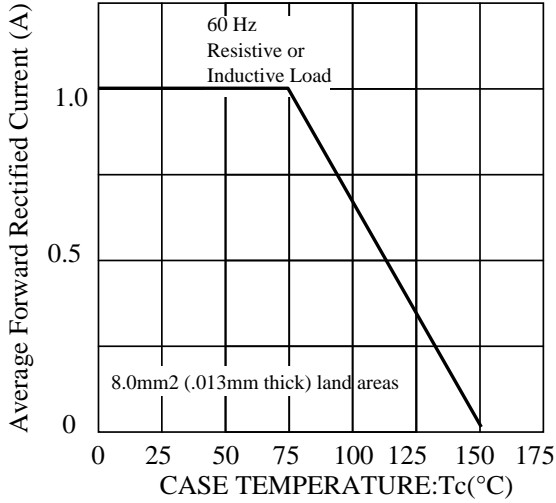


Fig. 2 - Maximum Non-repetitive Peak Forward Surge Current

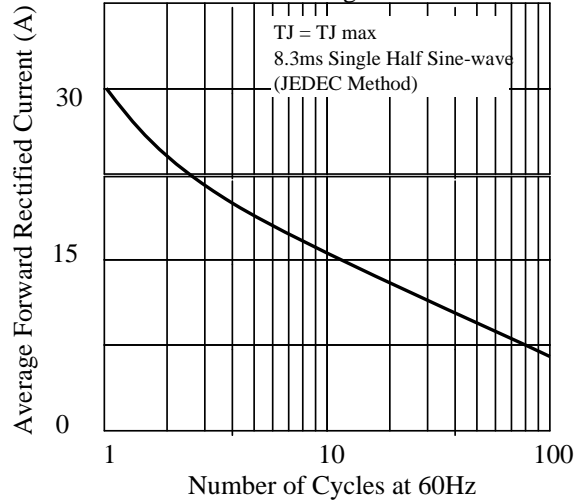


Fig 3. - Typical Instantaneous Forward Characteristics

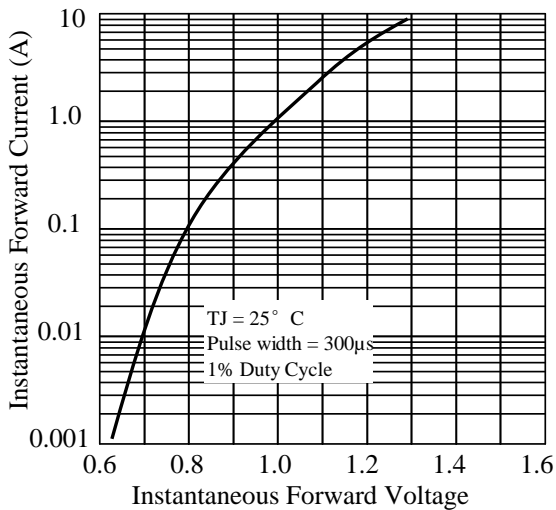


Fig 4. - Typical Reverse Characteristics

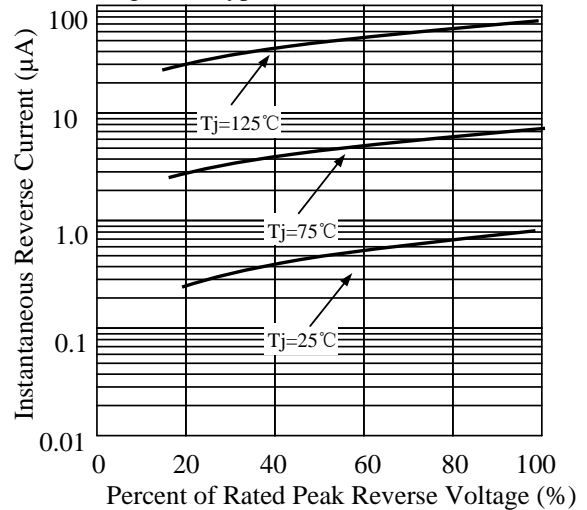


Fig 5. - typical transient thermal impedance

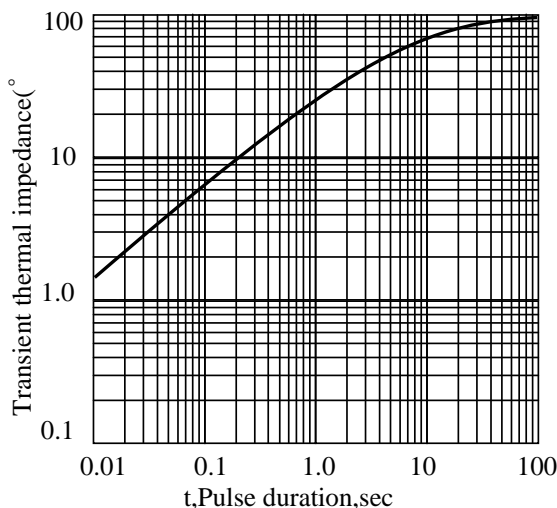
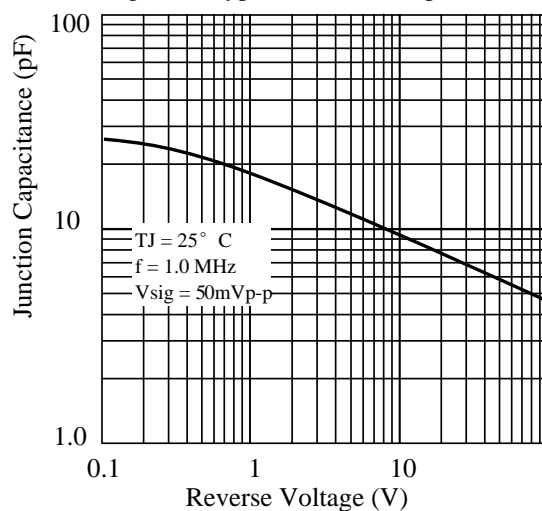
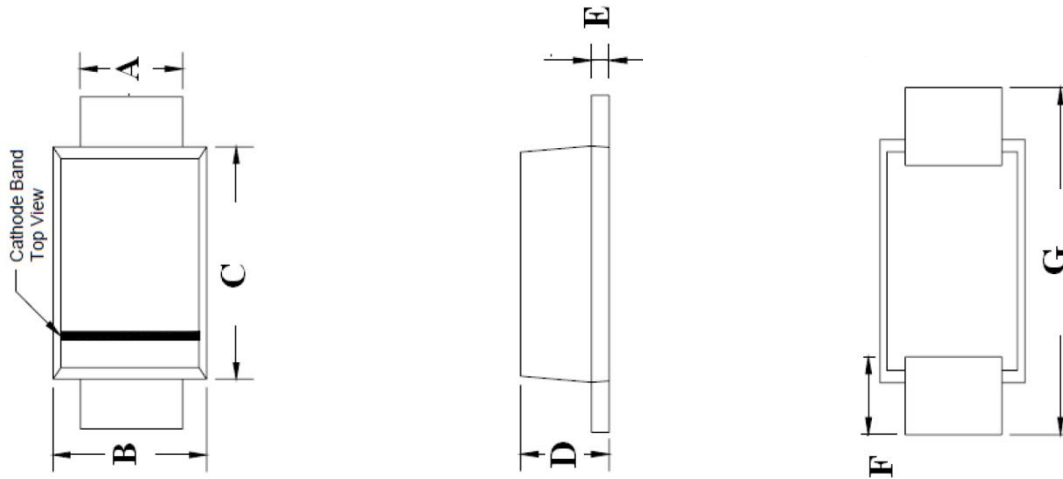


Fig 6. - Typical Junction Capacitance



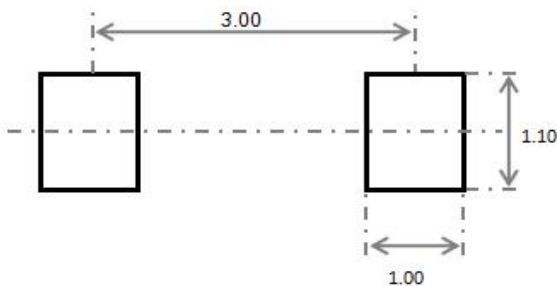
GENERAL PURPOSE RECTIFIER DIODE

SOD-123FL Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.75	0.95	0.029	0.037
B	1.60	2.00	0.063	0.079
C	2.60	3.00	0.103	0.119
D	0.90	1.20	0.036	0.047
E	0.12	0.22	0.005	0.009
F	0.8Typ		0.032Typ	
G	3.50	3.90	0.138	0.159

SOD-123FL Suggested Pad Layout



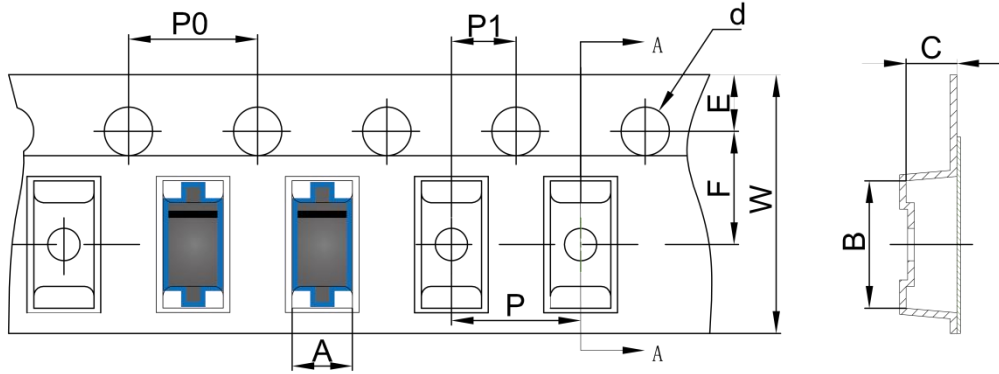
Note:

1. Controlling dimension: in millimeters
2. General tolerance: $\pm 0.05\text{mm}$
3. The pad layout is for reference purposes only

GENERAL PURPOSE RECTIFIER DIODE

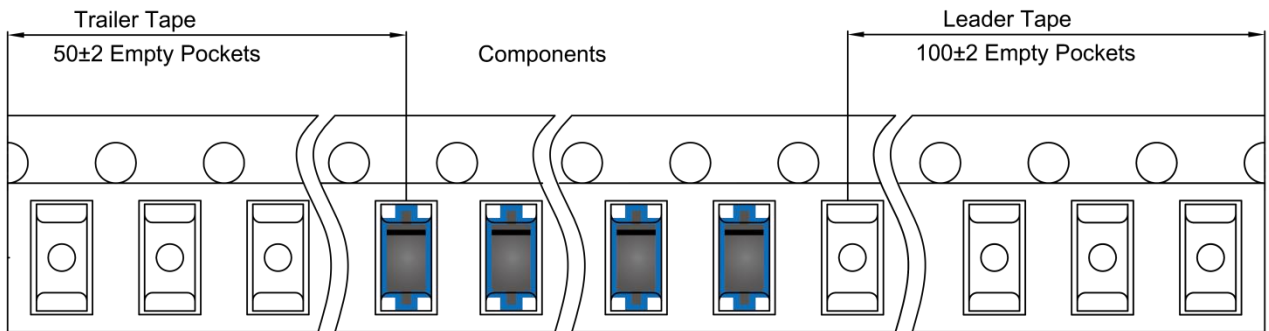
SOD-123FL Tape and Reel

SOD-123FL Embossed Carrier Tape

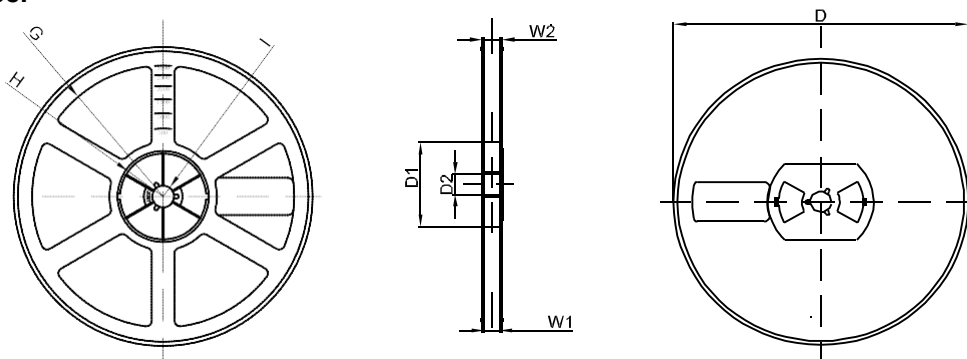


DIMENSIONS ARE IN MILLIMETER										
TYPE	A	B	C	d	E	F	P0	P	P1	W
SOD-123FL	2.10	4.00	1.25	Ø1.50	1.75	3.50	4.00	4.00	2.00	8.00
TOLERANCE	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1

SOD-123FL Tape Leader and Trailer



SOD-123FL Reel



DIMENSIONS ARE IN MILLIMETER								
REEL OPTION	D	D1	D2	G	H	I	W1	W2
7" DIA	Ø178	54.40	13.00	R78	R25.60	R6.50	9.50	12.30
TOLERANCE	±2	±1	±1	±1	±1	±1	±1	±1