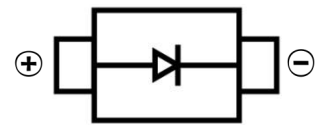


**GENERAL PURPOSE RECTIFIER DIODE**
**FEATURES**

- 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
- Weight: 0.0155 grams (approximate)


**MARKING:A1-A7**
**MAXIMUM RATINGS (T<sub>A</sub> = 25°C unless otherwise noted)**

Parameter	Symbol	1N4001L	1N4002L	1N4003L	1N4004L	1N4005L	1N4006L	1N4007L	Unit
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	V
RMS Reverse Voltage	V <sub>R(RMS)</sub>	35	70	140	280	420	560	700	V
DC Blocking Reverse Voltage	V <sub>R</sub>	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current	I <sub>F</sub>	1							A
Non-Repetitive Peak Forward Surge Current (@t=8.3ms)	I <sub>FSM</sub>	30							A
Thermal Resistance From Junction To Ambient	R <sub>θJA</sub>	120							°C/W
Junction and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-50 ~+150							°C

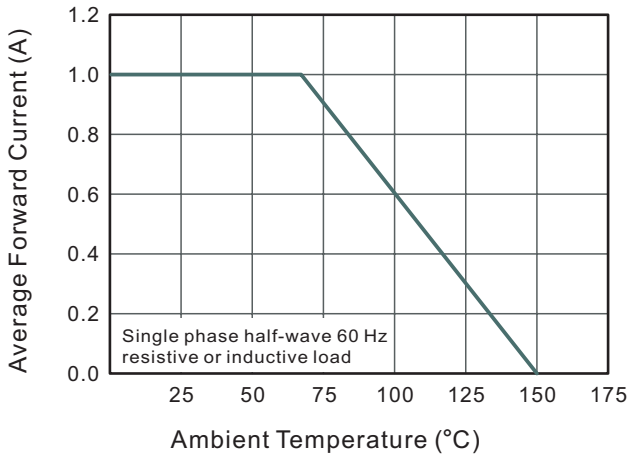
**ELECTRICAL CHARACTERISTICS (T<sub>A</sub> = 25°C unless otherwise specified)**

Parameter	Symbol	Min	Typ	Max	Unit	Conditions
Forward voltage	V <sub>F</sub>			1.1	V	I <sub>F</sub> =1A
Reverse current	I <sub>R</sub>			5	uA	V=V <sub>R</sub>
				50		V=V <sub>R</sub> , T <sub>a</sub> =125°C
Diode capacitance	C <sub>D</sub>		9		pF	V <sub>R</sub> =4V <sub>DC</sub> , f=1MHz

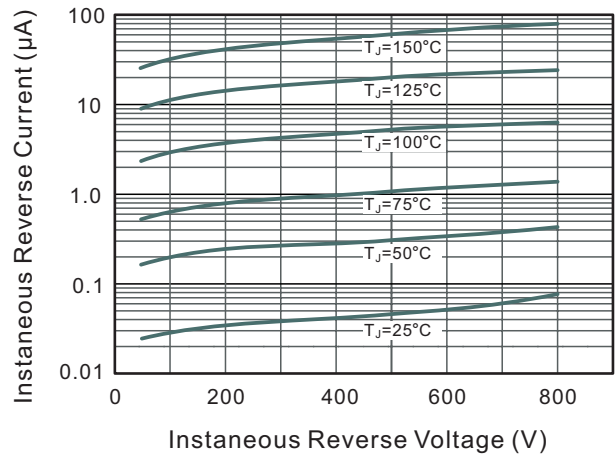
GENERAL PURPOSE RECTIFIER DIODE

**Typical Characteristics**

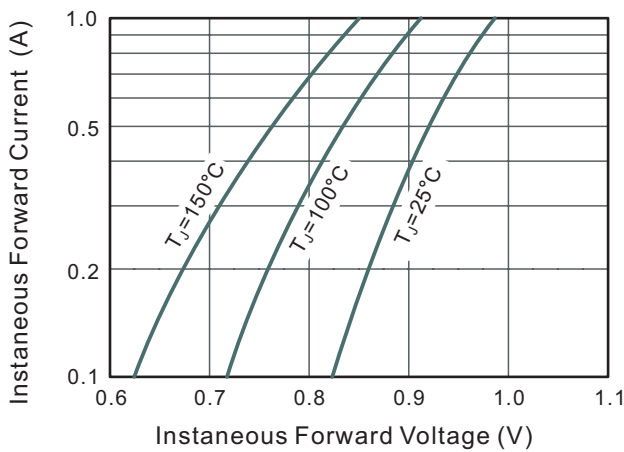
**Fig.1 Forward Current Derating Curve**



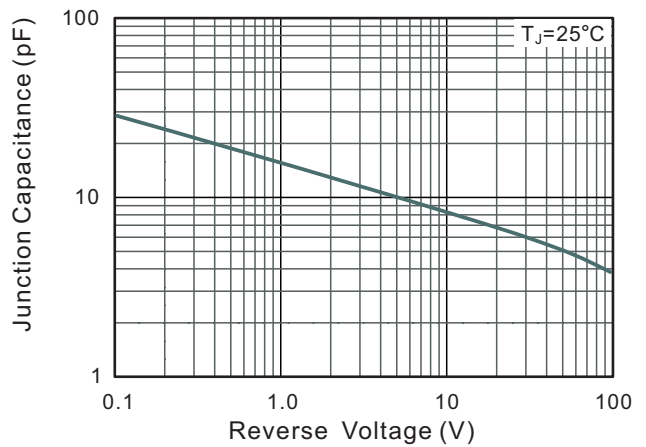
**Fig.2 Typical Instaneous Reverse Characteristics**



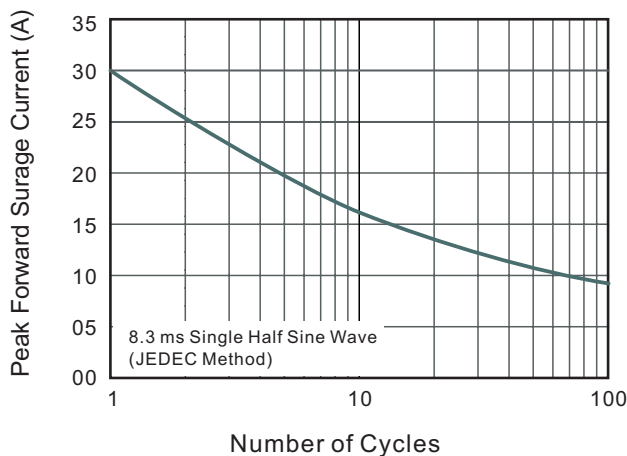
**Fig.3 Typical Forward Characteristic**



**Fig.4 Typical Junction Capacitance**

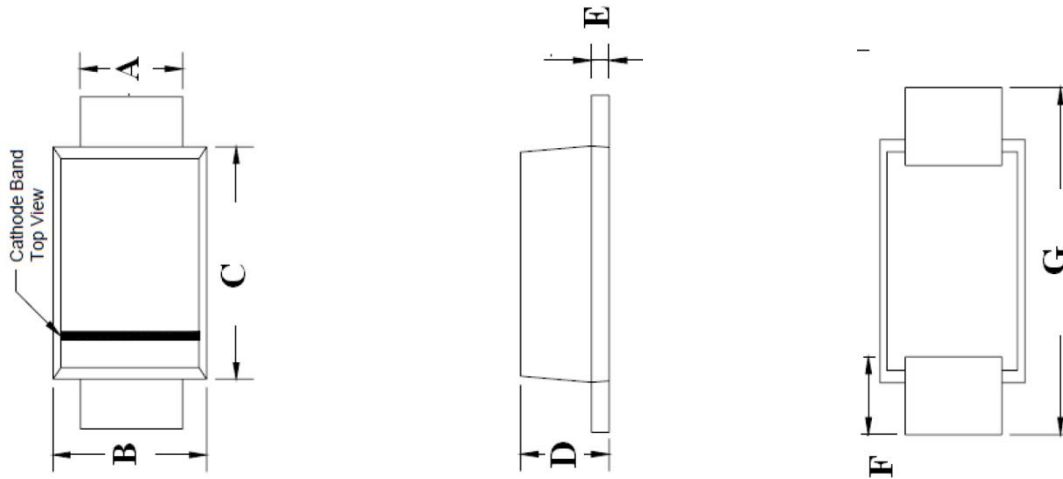


**Fig.5 Maximum Non-Repetitive Peak Forward Surge Current**



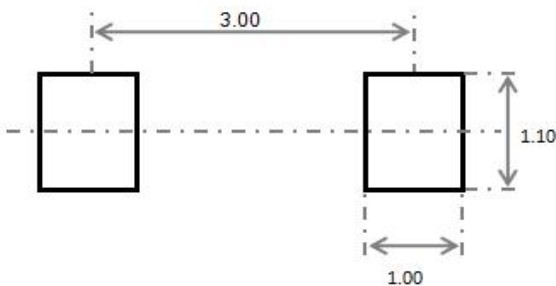
GENERAL PURPOSE RECTIFIER DIODE

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



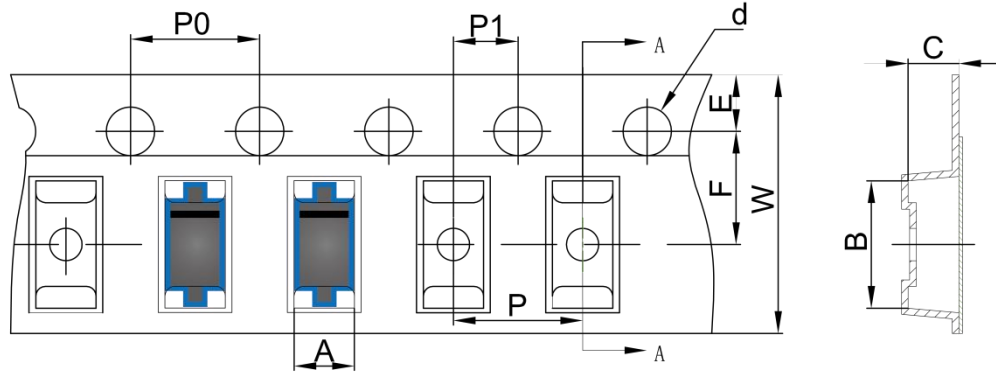
Note:

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

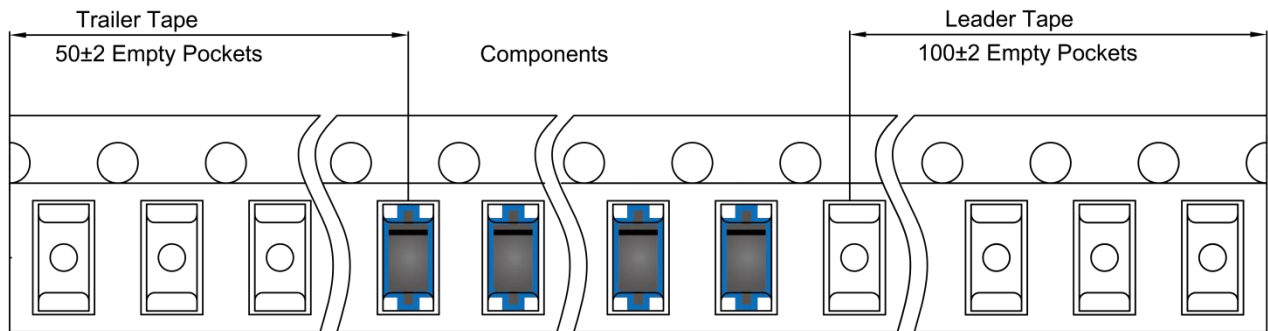
SOD-123FL Tape and Reel

SOD-123FL Embossed Carrier Tape

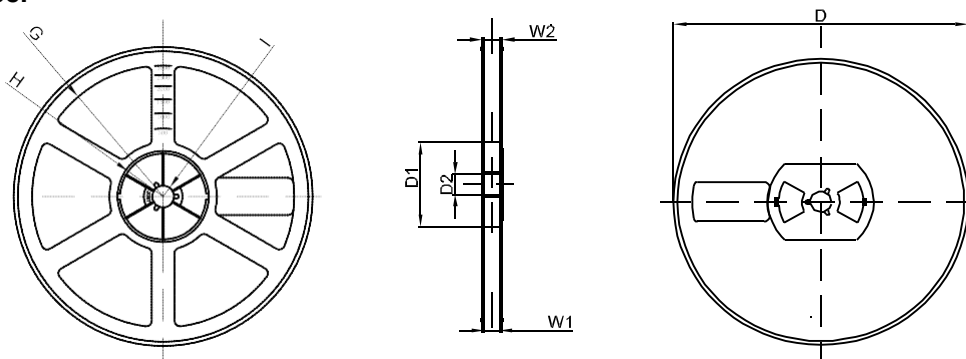


DIMENSIONS ARE IN MILLIMETER										
TYPE	A	B	C	d	E	F	P0	P	P1	W
SOD-123FL	2.10	4.00	1.25	Ø1.50	1.75	3.50	4.00	4.00	2.00	8.00
TOLERANCE	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1

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