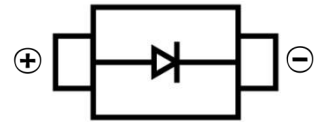


SUPER FAST RECOVERY RECTIFIER DIODE
FEATURES

- Surface Mount device
- Low Reverse voltage leakage current
- Glass passivated junction
- High forward surge current capability
- Low forward voltage drop
- Super Fast Recovery Time for High Efficiency


SOD-123FL
MECHANICAL DATA

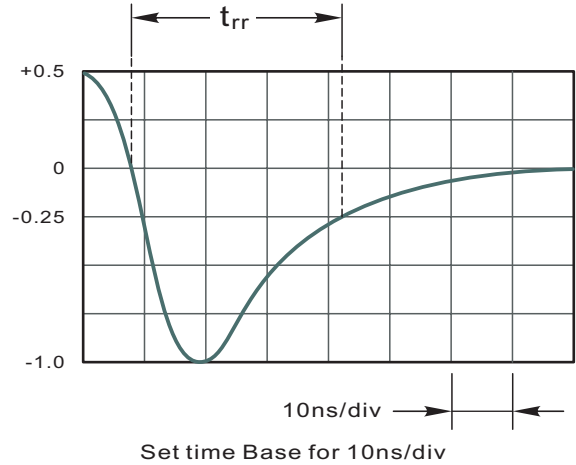
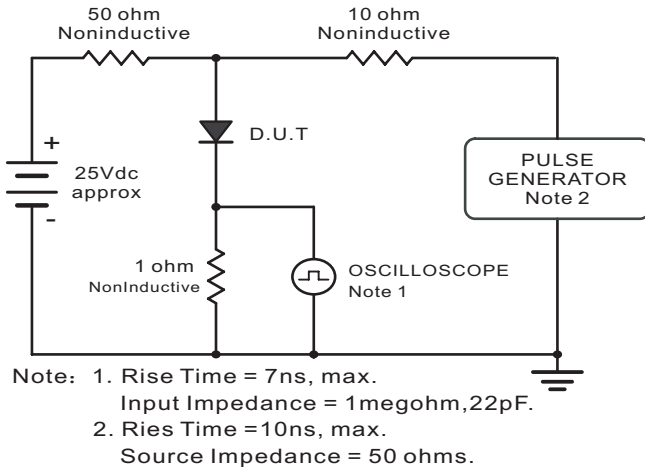
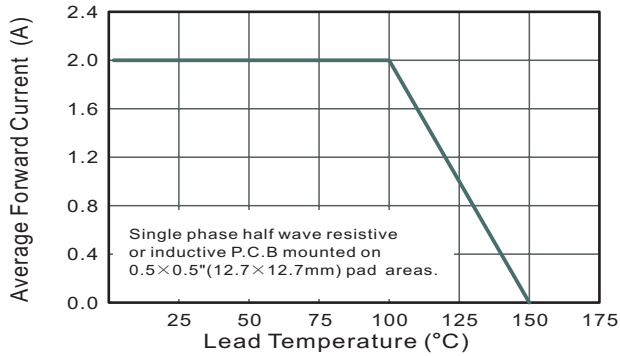
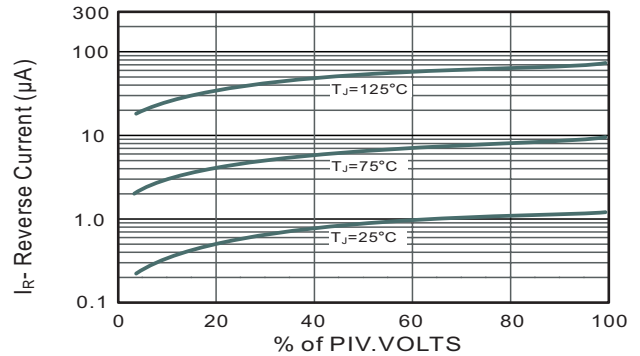
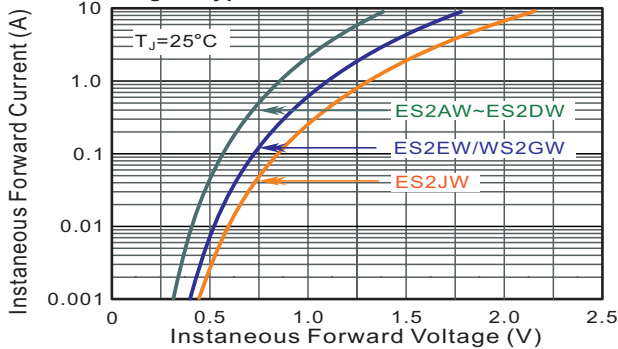
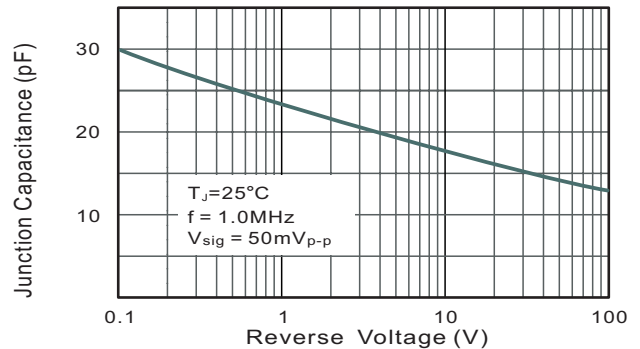
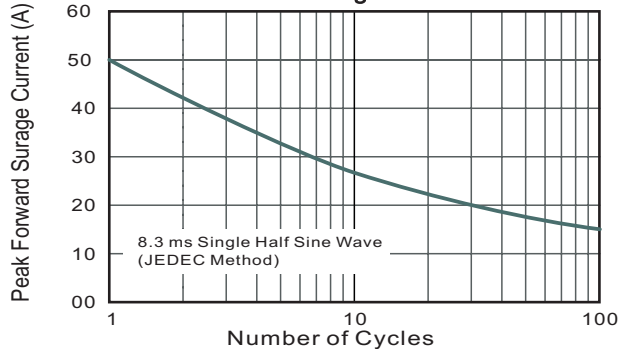
- Case: SOD-123FL
- Case Material: Molded Plastic. UL flammability
- Classification Rating: 94V-0
- Weight: 0.0155 grams (approximate)

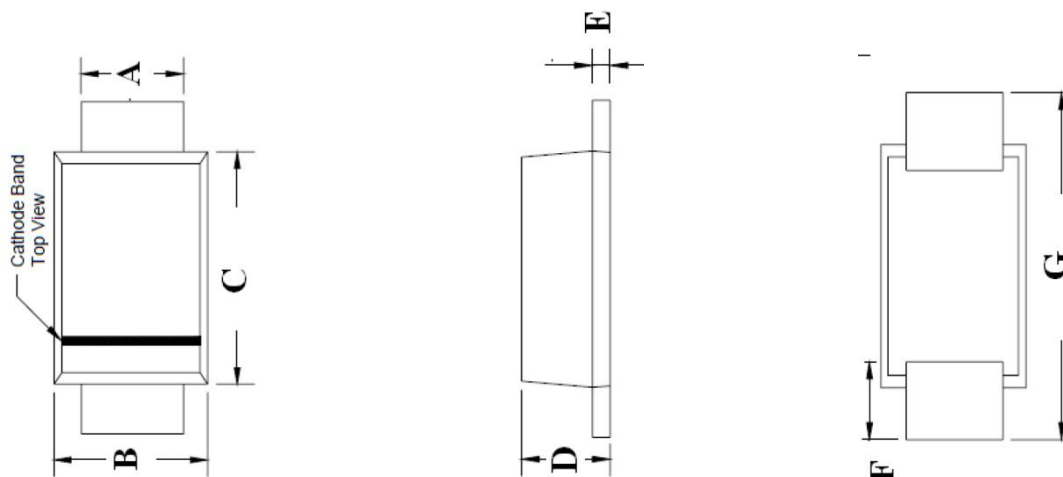

MAXIMUM RATINGS ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	Unit
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	400	V
DC Blocking Reverse Voltage	V_R	400	V
RMS Reverse Voltage	$V_{R(RMS)}$	280	V
Maximum Average Forward Rectified Current	I_F	2	A
Non-Repetitive Peak Forward Surge Current @ $t=8.3\text{ms}$	I_{FSM}	50	A
Thermal Resistance From Junction To Ambient	$R_{\theta JA}$	75	$^\circ\text{C/W}$
Reverse Recovery Time(@ $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{RR}=0.25\text{A}$)	t_{rr}	35	nS
Junction Temperature	T_J	-55 ~+150	$^\circ\text{C}$
Storage Temperature	T_{STG}	-55 ~+150	$^\circ\text{C}$

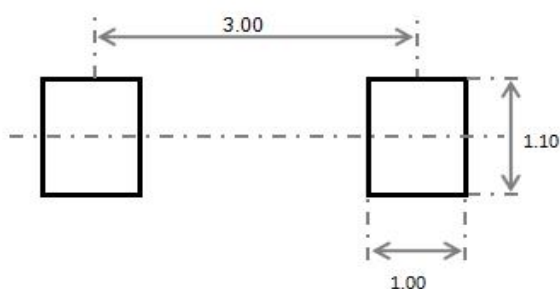
ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Min	Typ	Max	Unit	Conditions
Forward voltage	V_F			1.25	V	$I_F=2\text{A}$
Reverse current @ $T_A=25^\circ\text{C}$	I_R			5	μA	$V_R=400\text{V}$
Reverse current @ $T_A=125^\circ\text{C}$	I_R			100	μA	$V_R=400\text{V}$
Diode capacitance	C_D		30		pF	$V_R=4V_{DC}$, $f=1\text{MHz}$

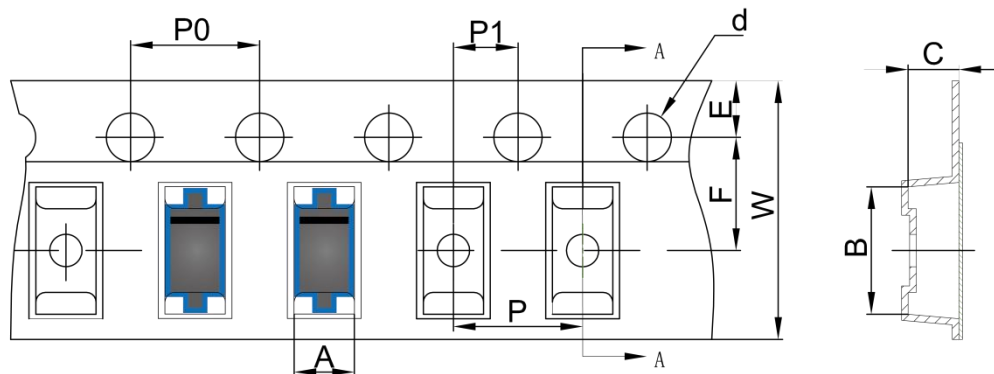
SUPER FAST RECOVERY RECTIFIER DIODE
Typical Characteristics
Fig.1 Reverse Recovery Time Characteristic And Test Circuit Diagram

Fig.2 Maximum Average Forward Current Rating

Fig.3 Typical Reverse Characteristics

Fig.4 Typical Forward Characteristics

Fig.5 Typical Junction Capacitance

Fig.6 Maximum Non-Repetitive Peak Forward Surge Current


SUPER FAST RECOVERY RECTIFIER DIODE
SOD-123FL Package Outline Dimensions


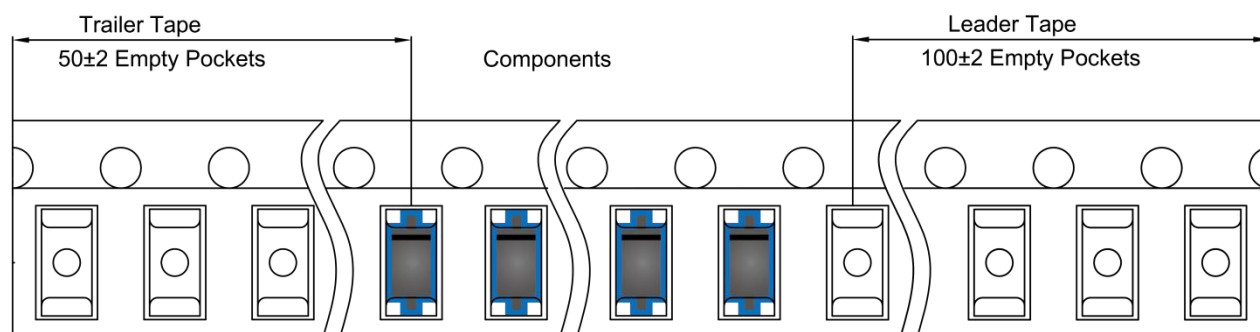
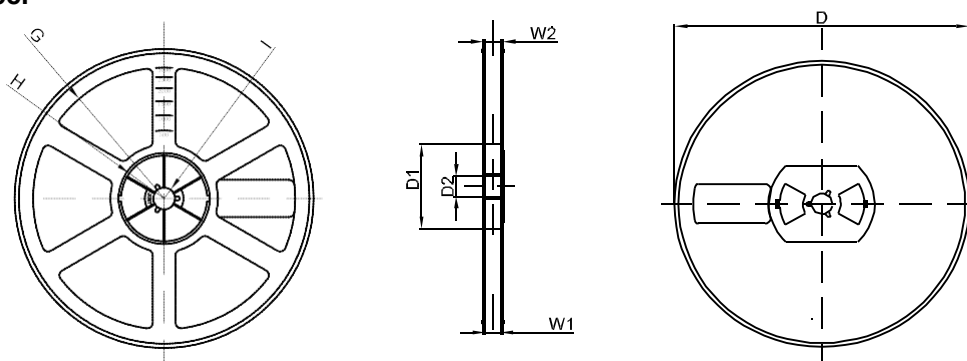
Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.75	0.95	0.029	0.037
B	1.60	2.00	0.063	0.079
C	2.60	3.00	0.103	0.119
D	0.90	1.20	0.036	0.047
E	0.12	0.22	0.005	0.009
F	0.8Typ		0.032Typ	
G	3.50	3.90	0.138	0.159

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

SUPER FAST RECOVERY 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