

### Ultrafast recovery Rectifier diode Reverse Voltage50V-1000v Forward current-1A

#### **Features**

Glass passivated chip
High surge current capability
Ldeal for surface mounted applications
Low power loss, high efficiency
Plastic Case Material has UL Flammability

#### Mechanical Data

Package: SOD-123FL

Terminals:Tin Plated leads, solderable per

Mil-STD-750 Method 2026

Polarity: As marked

Molding compound meets UL 94 V-0 flammability rating,

**ROHS-compliant** 





### Maximum Ratings (Ta=25° Unless otherwise specified)

Tuna Niumbar	SYMBOL -		U1						
Type Number	STIMBUL	Α	В	D	G	J	K	М	Umit
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	٧
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current	IO <sub>(AV)</sub>	1.0				Α			
Peak Forward Surge Current 8.3ms Single half-sine-wave superimposed on rated load(JEDEC Method) on rated	IFSM	25.0						Α	
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, Tj=25 ℃	II OW	50.0				Α			
Current squared time @1ms≤t8.3≤ms Tj=25℃,Rating of per diode	l <sup>2</sup> t	2.6				A <sup>2</sup> S			
Maximum Forward Voltage at 1.0A DC	$V_{FM}$		1.0		1.3		1.7		٧
Maximum Reverse Current TA = 25 ℃	ID	5.0			uA				
at Rated DC Blocking Voltage TA = 125℃	- IR	100.0							
Maximum reverse recovery time	Trr	50.0 75.0					ns		
Typical Thermal Resistance Between junction and	$R_{QJa}$		75.0				°C/W		
Operating Junction Temperature Range	$T_J$	—55to+150					$^{\circ}$		
Storage Temperature Range	T <sub>STG</sub>	—55to+150					$^{\circ}$		

FIG. 1MAXIMUM AVERAGE FORWARD CURRENT DERATING

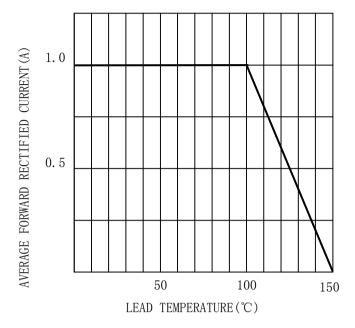


FIG. 2TYPICAL FORWARD CHARACTERISTICS

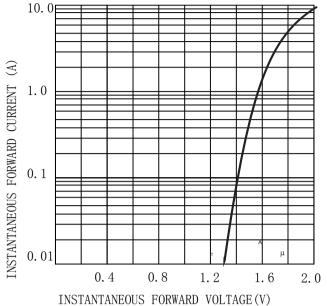


FIG. 3MAXIMUM NON-REPEITIVE SURGE CURRENT

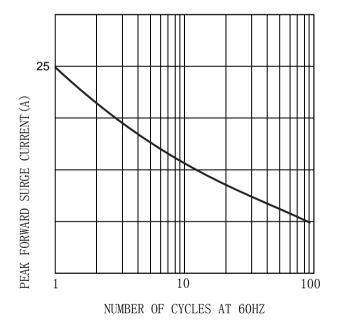
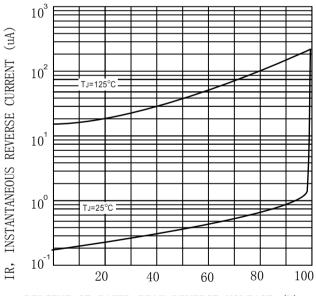


FIG. 4 TYPICAL REVERSE CHARACTERISTICS (per element)



PERCENT OF RATED PEAK REVERSE VOLTAGE (%)

### **MARKING INFORMATION**



= Logo

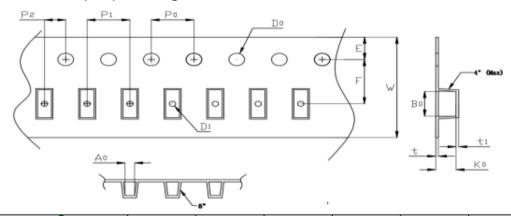
\*\*\*\* = Date Code Marking

U1\* = Marking Code

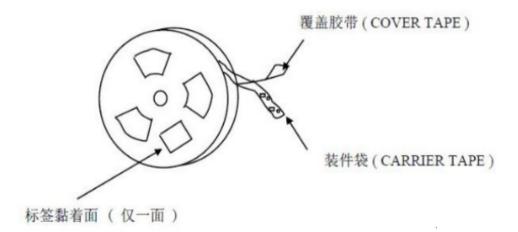
Print according to customer request

### **PACKING REQUIRMENTS**

Carrier tape packing



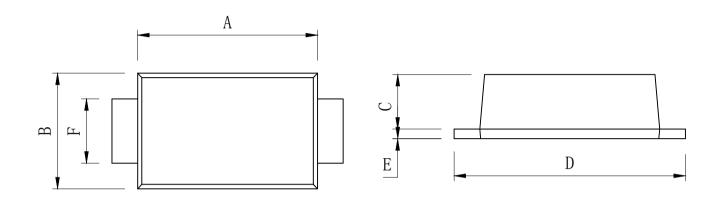
Specificati	Carrier	Ao	Во	Ко	Po	w	+	Exiplain
ons	tape type	Α0	ВО	KU	-	**		LXIPIAIT
SOD-123FL	Anti-static	1.95± 0.10	$3.95 \pm 0.10$	$1.35 \pm 0.10$	$4.00 \pm 0.10$	$8.0 \pm 0.10$	$0.23 \pm 0.05$	



DEVICE TYPE	Tape width	7"Reel				
		Q'TY/REEL (pcs)	BOX/CAR TOON	Q'TY/REEL (pcs)		
SOD-123FL	8mm	3000	80	240000		

## Outline Dimensions

SOD-123FL



SOD-123FL							
DIM	INC	HES	MM				
	MIN	MAX	MIN	MAX			
A	0.10	0.12	2.5	3			
В	0.06	0.08	1.5	2			
С	0.03	0.06	0.7	1.5			
D	0. 12	0.16	3	4			
Е	/	0.01	/	0.3			
F	0.02	0.06	0.5	1.5			



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