

/ Descriptions

SOD-123FL
Silicon Bidirectional Trigger Diodes, SOD-123FL thin package。

/ Features

Use in thyristor phase control,circuits for lamp-dimming,universal-motor speed controls,and heat controls.Halogen free product.

/ Applications

General purpose.

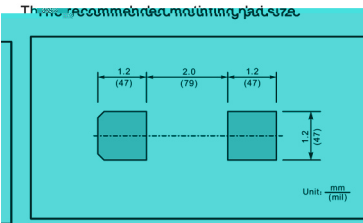
/ Equivalent Circuit



/ Pinning



PIN	DESCRIPTION
1	Cathode
2	Anode



/ Marking

See Marking Instructions.

/ Absolute Maximum Ratings($T_a=25^\circ\text{C}$)

Parameter	Symbol	Rating	Unit
Power Dissipation ($T_c=100^\circ\text{C}$)	P_{tot}	150	mW
Repetitive Peak On-state Current ($t_p=20\mu\text{s}$, $f=100\text{Hz}$)	I_{TRM}	2	A
Operating Junction and Storage Temperature Range	T_j T_{stg}	-40 to +125	$^\circ\text{C}$

/ Electrical Characteristics($T_a=25^\circ\text{C}$)

Parameter	Symbol	Test Conditions		Min	Max	Unit
Breakover Voltage	V_{BO}	C=22nF see diagram 1	DB3W	28	36	V
			DC34W	30	38	V
			DB4W	35	45	V
Breakover Voltage Symmetry	[+V _{BO} - V _{BO}]	C=22nF see diagram 1		—	3	V
Dynamic Breakover Voltage	$\Delta V \pm$	ΔI =[I _{BO} to I _F =10mA]		5	—	V
Output Voltage	V _O	See diagram 2		5	—	V
Breakover Current	I _{BO}	C=22nF		—	50	uA
Leakage Current	I _B	V _B =0.5 V _{BO} max		—	10	uA
Rise Time	t _r	See diagram 3		—	2	us

/ Electrical Characteristic Curve

Diagram1: current-voltage characteristic

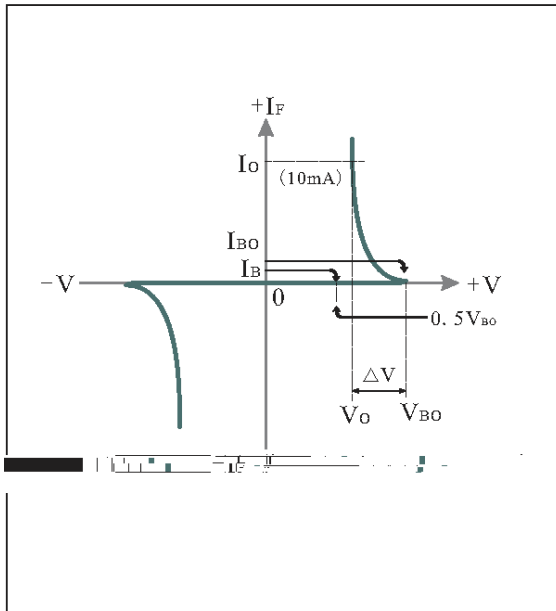


Diagram2: Test circuit for output voltage

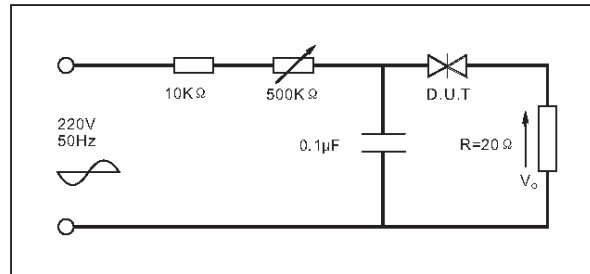
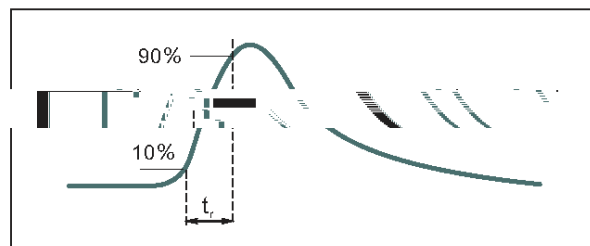
Diagram3: Test circuit see Fig.2. Adjust R for $I_p=0.5A$ 

Fig.1: Power dissipation versus ambient temperature(maximum values)

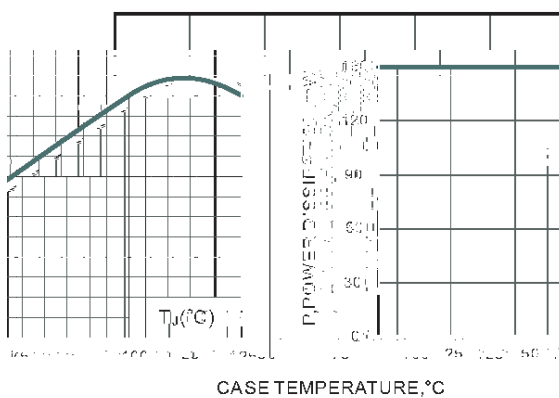


Fig.2: Power dissipation versus ambient temperature(maximum values)

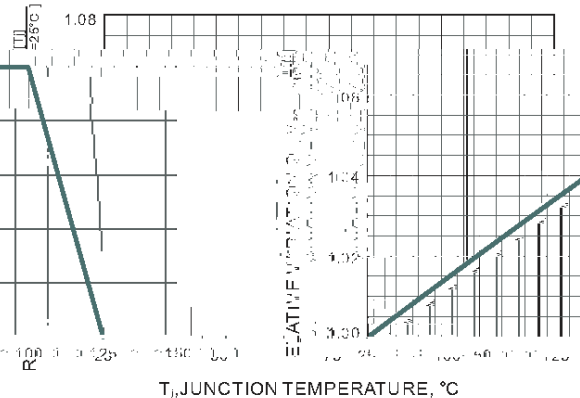
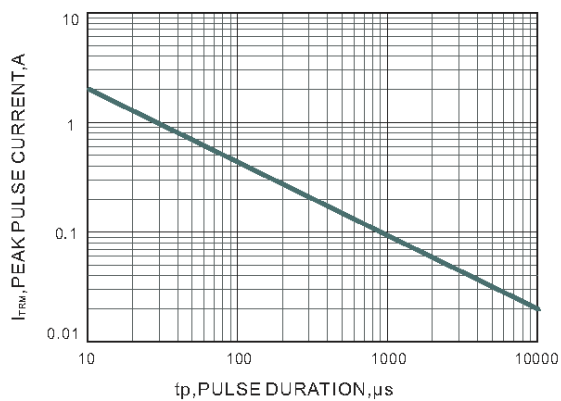
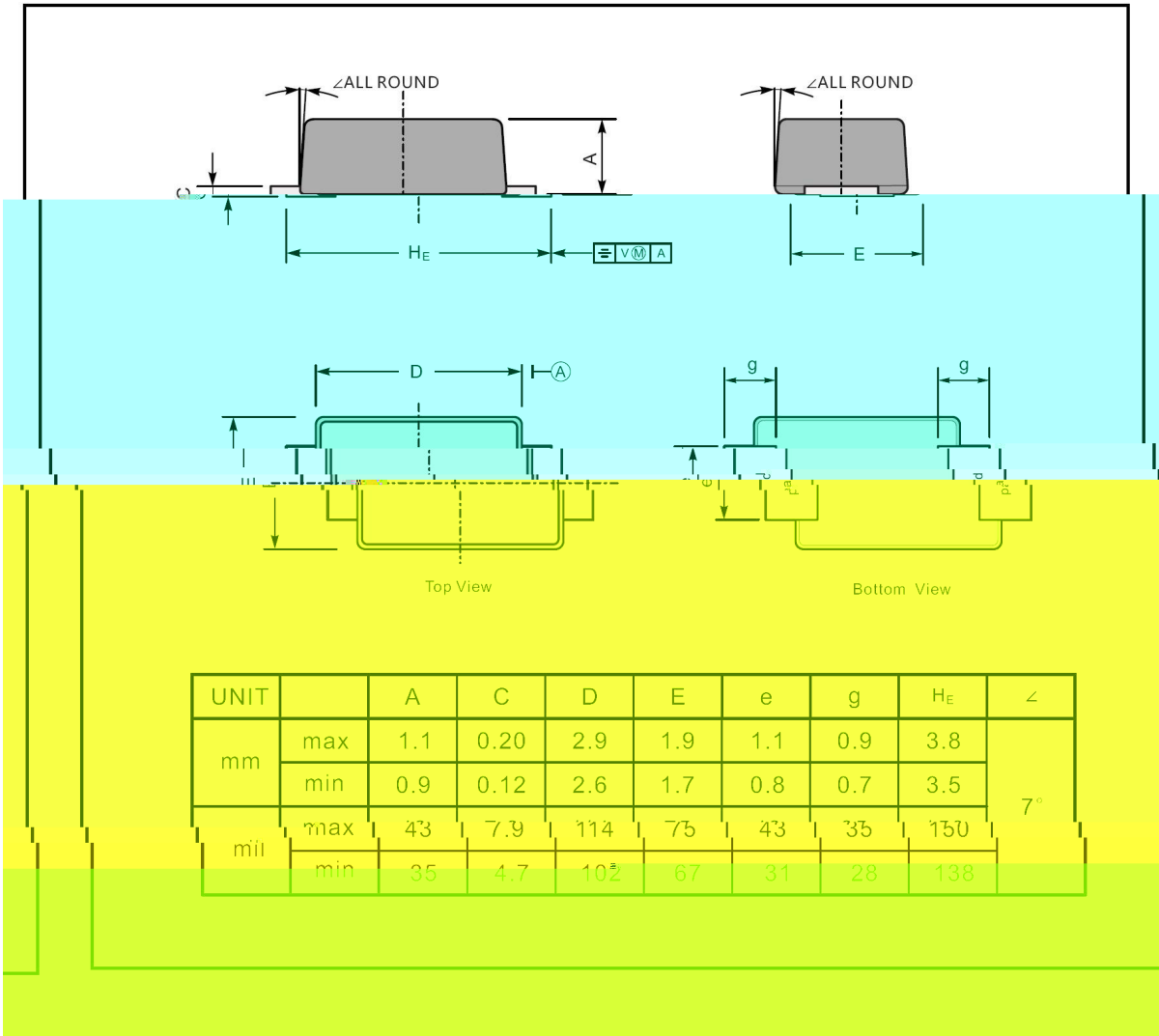


Fig.3: Power dissipation versus ambient temperature(maximum values)



/ Package Dimensions

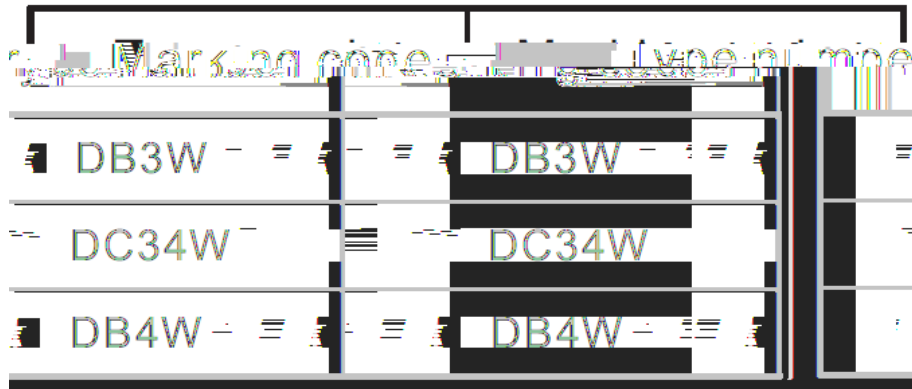
SOD-123FL



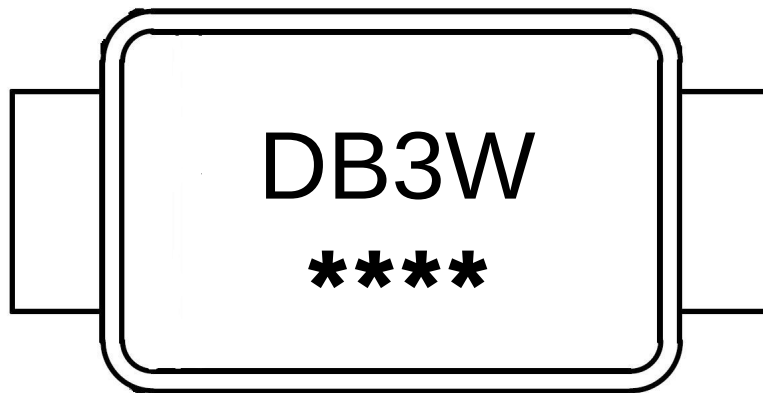


/ Marking Instructions

Marking



/ Marking Instructions



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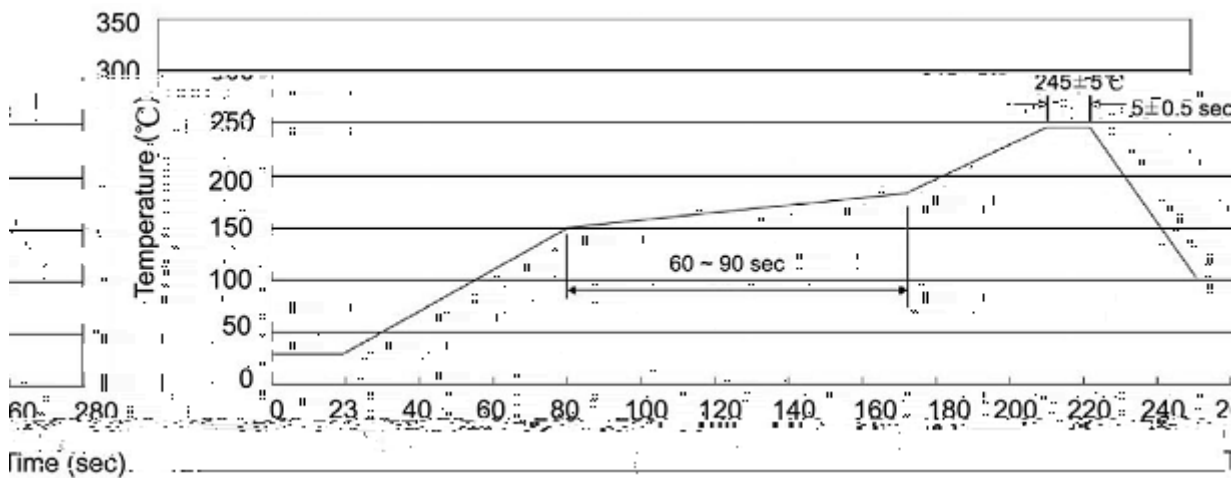
Note:

Product Type Code

Lot No. Code The 1st "*" means:YM Code The last 3 "*" means:little Lot

No Code

() / Temperature Profile for IR Reflow Soldering(Pb-Free)



Note:

- | | | | | | |
|---|-----|-----|----|-----------|---|
| 1 | 25 | 150 | 60 | 90sec; | 1.Preheating:25~150 , Time:60~90sec. |
| 2 | 245 | 5 | | 5 0.5sec; | 2.Peak Temp.:245 5 , Duration:5 0.5sec. |
| 3 | | | 2 | 10 /sec. | 3. Cooling Speed: 2~10 /sec. |

/ Resistance to Soldering Heat Test Conditions

260 5 10 1 sec. Temp.:260 5 Time:10 1 sec

/ Packaging SPEC.

/ REEL

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm ³)		
	Units/Reel 只/卷盘	Reels/Inner Box 卷盘/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Reel	Inner Box 盒	Outer Box 箱
SOD-123FL	3000	8	24000	5	120000	7" ×11	185X180X105	390X385X205

/ Notices