



Silicon Bidirectional Trigger Diodes

FEATURES

These diacs are intended for use in thyristor phase control. circuits for lamp-dimming. universal-motor speed controls. and heat controls.

MECHANICAL DATA

- Case: SOD-123FL
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight:15mg 0.00048oz

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Top View
Simplified outline SOD-123FL and symbol

Absolute Maximum Ratings (Ta = 25°C)

Parameter	Symbol	Value	Unit
Power Dissipation (T _c = 100°C)	P _{tot}	150	mW
Repetitive Peak On-state Current (tp = 20 μs, f = 100 Hz)	I _{TRM}	2	A
Operating Junction and Storage Temperature Range	T _j , T _{stg}	- 40 to + 125	°C

Characteristics at Ta = 25°C

Parameter		Symbol	Min.	Max.	Unit
Breakover Voltage at C = 22 nF, see diagram 1	DB3W	V _{BO}	28	36	V
	DC34W		30	38	V
	DB4W		35	45	V
Breakover Voltage Symmetry at C = 22 nF, see diagram 1		[+V _{BO} - -V _{BO}]	—	3	V
Dynamic Breakover Voltage at ΔI = [I _{BO} to I _F = 10 mA]		ΔV ±	5	—	V
Output Voltage See diagram 2		V _O	5	—	V
Breakover Current at C = 22 nF		I _{BO}	—	50	μA
Leakage Current at V _B =0.5V _{BOmax}		I _B	—	10	μA
Rise Time See diagram 3		t _r	—	2	μs



Diagram1: current-voltage characteristic

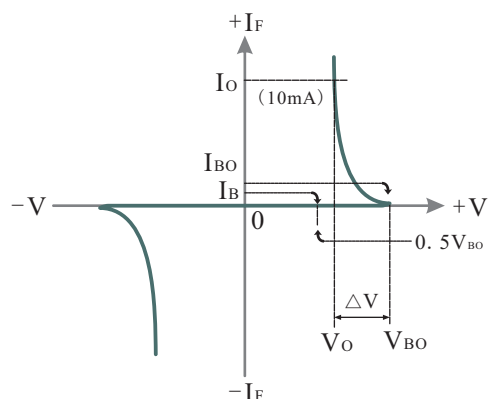


Diagram2: Test circuit for output voltage

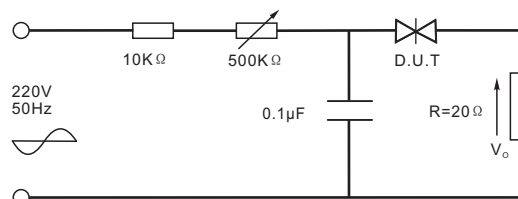


Diagram3: Test circuit see Fig.2. Adjust R for $I_p=0.5A$

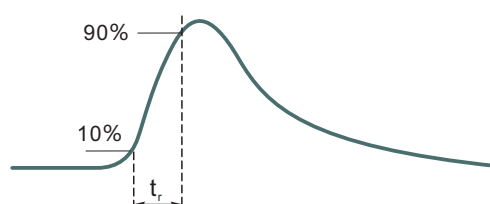


Fig.1: Power dissipation versus ambient temperature(maximum values)

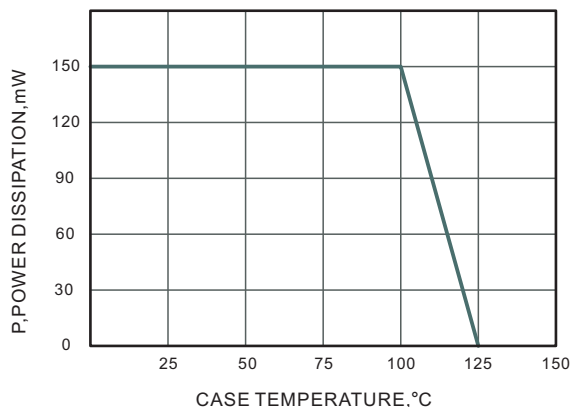


Fig.2: Power dissipation versus ambient temperature(maximum values)

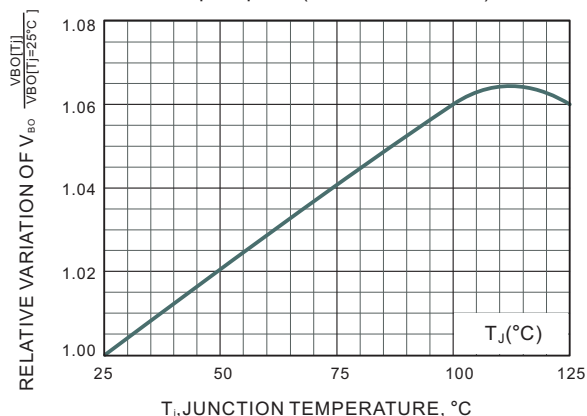
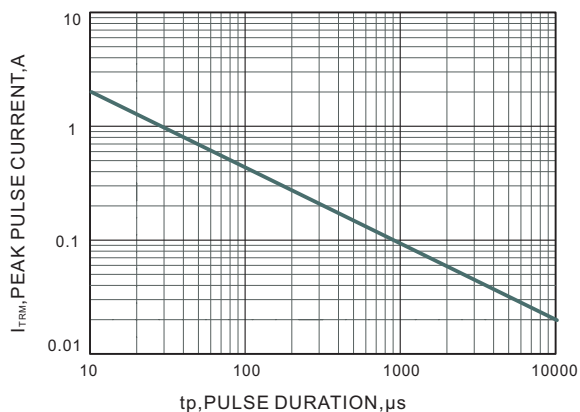


Fig.3: Power dissipation versus ambient temperature(maximum values)

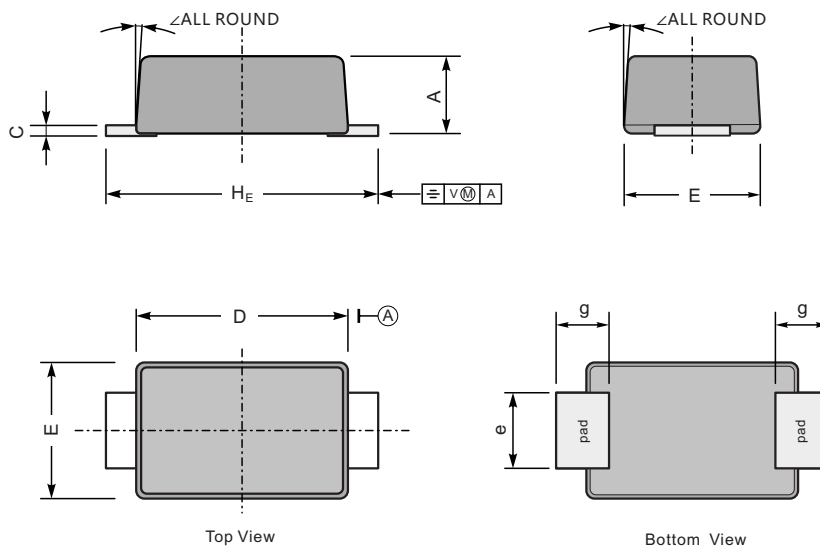




PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-123FL



UNIT		A	C	D	E	e	g	H _E	∠
mm	max	1.1	0.20	2.9	1.9	1.1	0.9	3.8	7°
	min	0.9	0.12	2.6	1.7	0.8	0.7	3.5	
mil	max	43	7.9	114	75	43	35	150	
	min	35	4.7	102	67	31	28	138	

The recommended mounting pad size

