



### Silicon Bidirectional Trigger Diodes

#### FEATURES

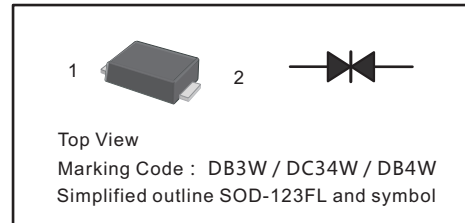
These diacs are intended for use in thyristor phase control circuits for lamp-dimming, universal-motor speed controls, and heat controls.

#### 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



#### Absolute Maximum Ratings (Ta = 25°C)

Parameter	Symbol	Value	Unit
Power Dissipation (Tc = 100°C)	P <sub>tot</sub>	150	mW
Repetitive Peak On-state Current (tp = 20 μs, f = 100 Hz)	I <sub>TRM</sub>	2	A
Operating Junction and Storage Temperature Range	T <sub>j</sub> , T <sub>stg</sub>	- 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 <sub>BO</sub>	28	36	V
	DC34W		30	38	V
	DB4W		35	45	V
Breakover Voltage Symmetry at C = 22 nF, see diagram 1		[ +V <sub>BO</sub>   -  -V <sub>BO</sub>  ]	—	3	V
Dynamic Breakover Voltage at ΔI = [I <sub>BO</sub> to I <sub>F</sub> = 10 mA]		ΔV ±	5	—	V
Output Voltage See diagram 2		V <sub>O</sub>	5	—	V
Breakover Current at C = 22 nF		I <sub>BO</sub>	—	50	μA
Leakage Current at V <sub>B</sub> = 0.5V <sub>BOmax</sub>		I <sub>B</sub>	—	10	μA
Rise Time See diagram 3		t <sub>r</sub>	—	2	μs



Diagram1: current-voltage characteristic

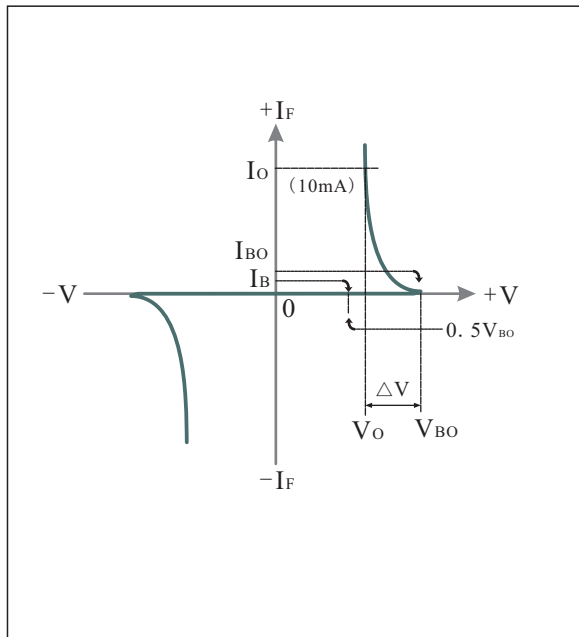


Diagram2: Test circuit for output voltage

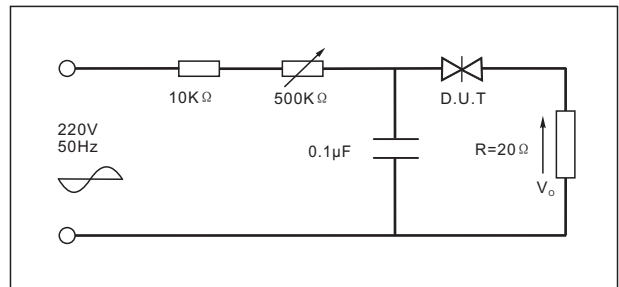


Diagram3: Test circuit see Fig.2. Adjust R for  $I_p=0.5\text{A}$

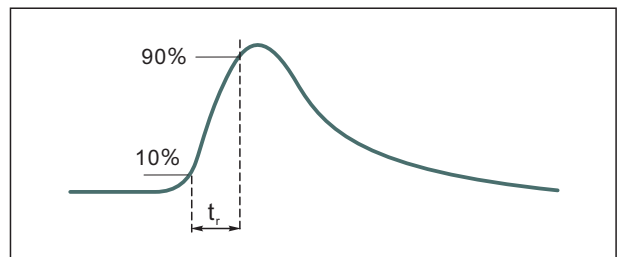


Fig.1: Power dissipation versus ambient temperature(maximum values)

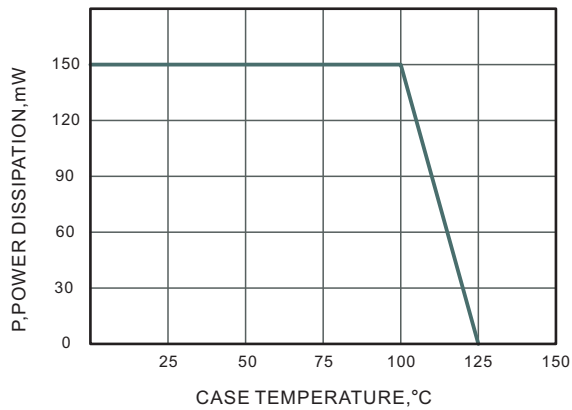


Fig.2: Power dissipation versus ambient temperature(maximum values)

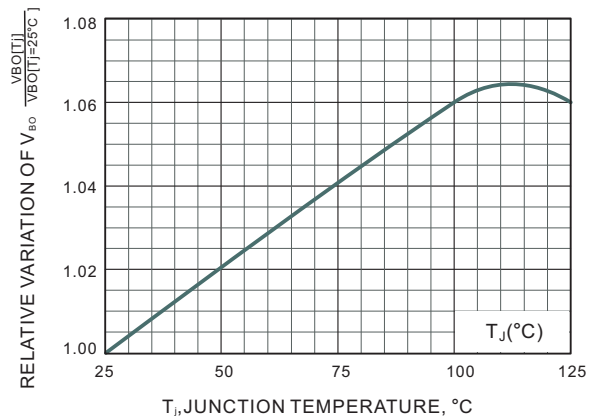
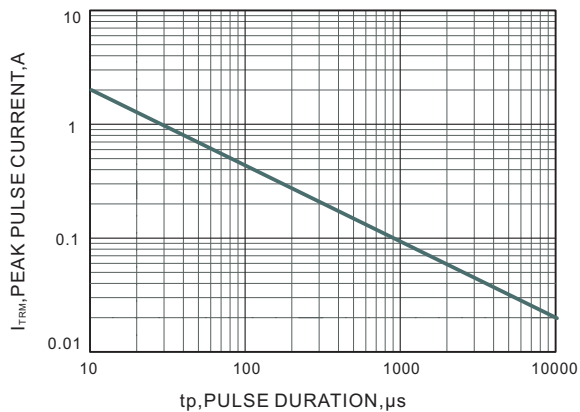


Fig.3: Power dissipation versus ambient temperature(maximum values)

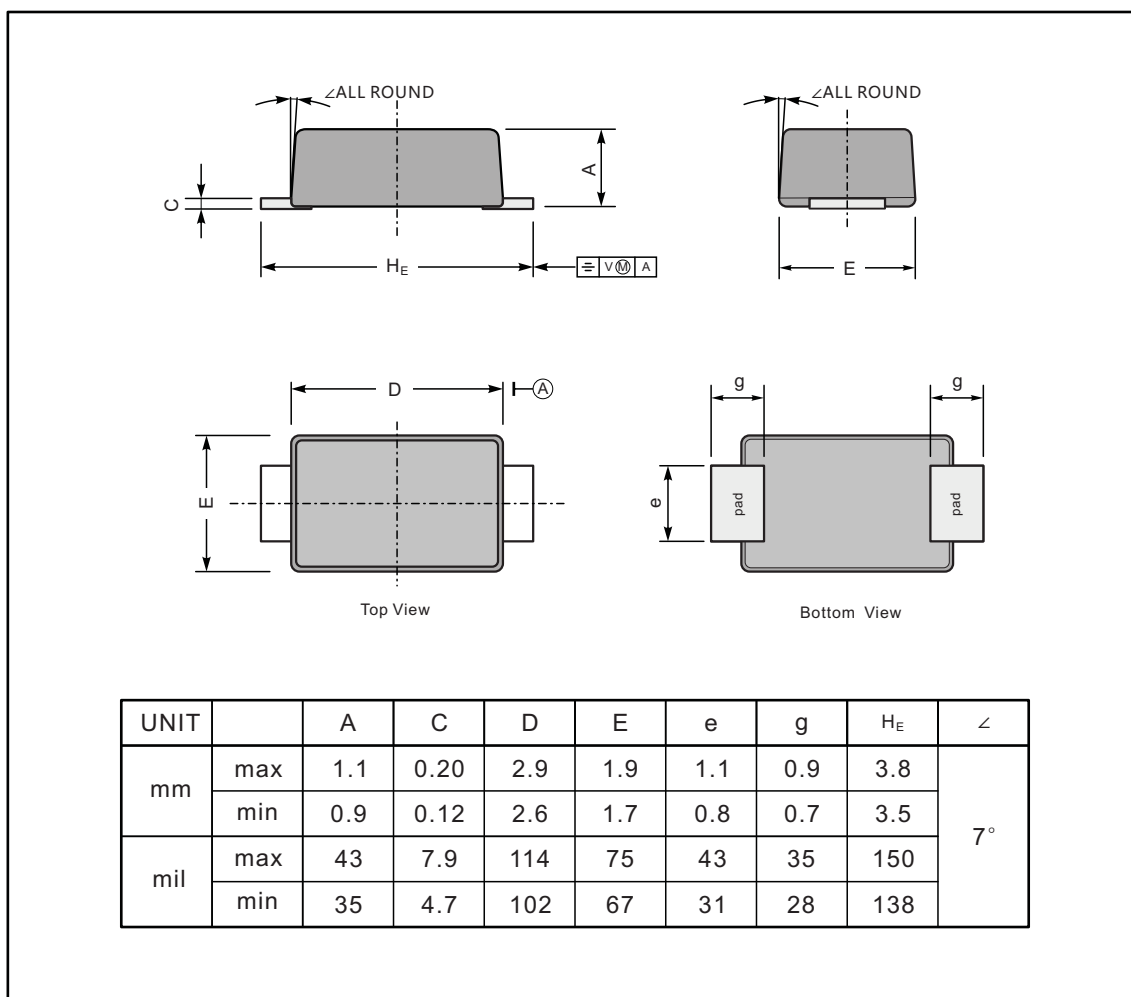




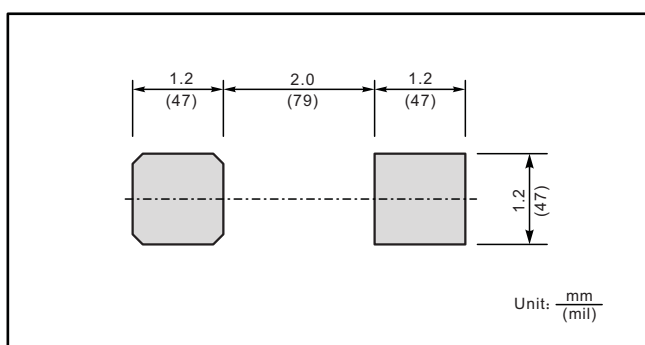
## PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-123FL



### The recommended mounting pad size



### Marking

Type number	Marking code
DB3W	DB3W
DC34W	DC34W
DB4W	DB4W