

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

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

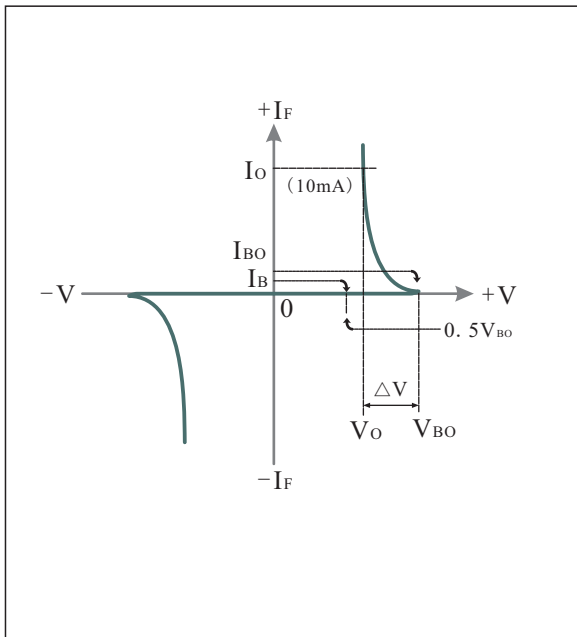


Diagram2: Test circuit for output voltage

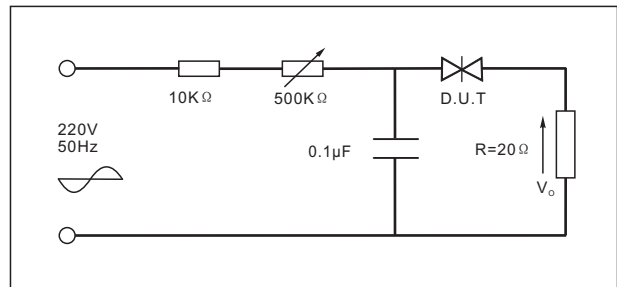


Diagram3: Test circuit see Fig.2. Adjust R for $I_p=0.5A$

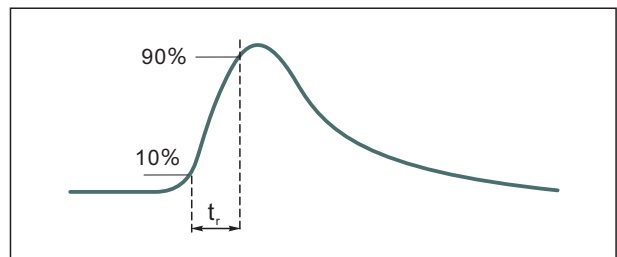


Fig.1: Power dissipation versus ambient temperature(maximum values)

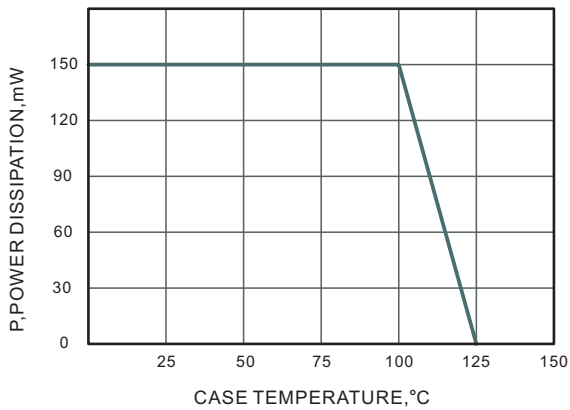


Fig.2: Power dissipation versus ambient temperature(maximum values)

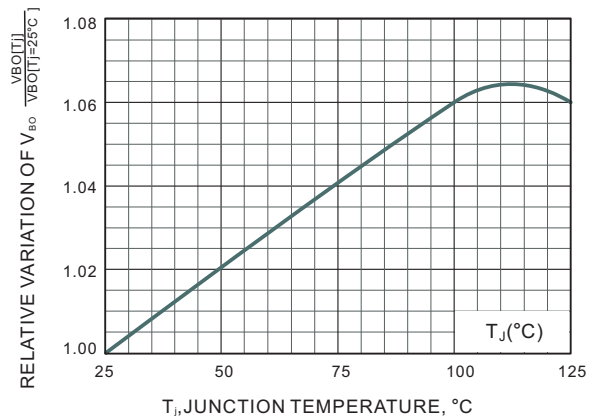
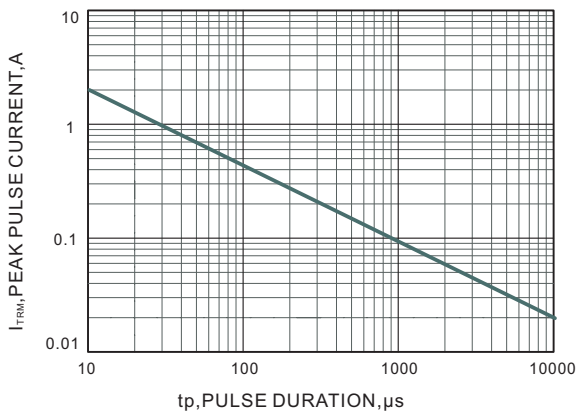


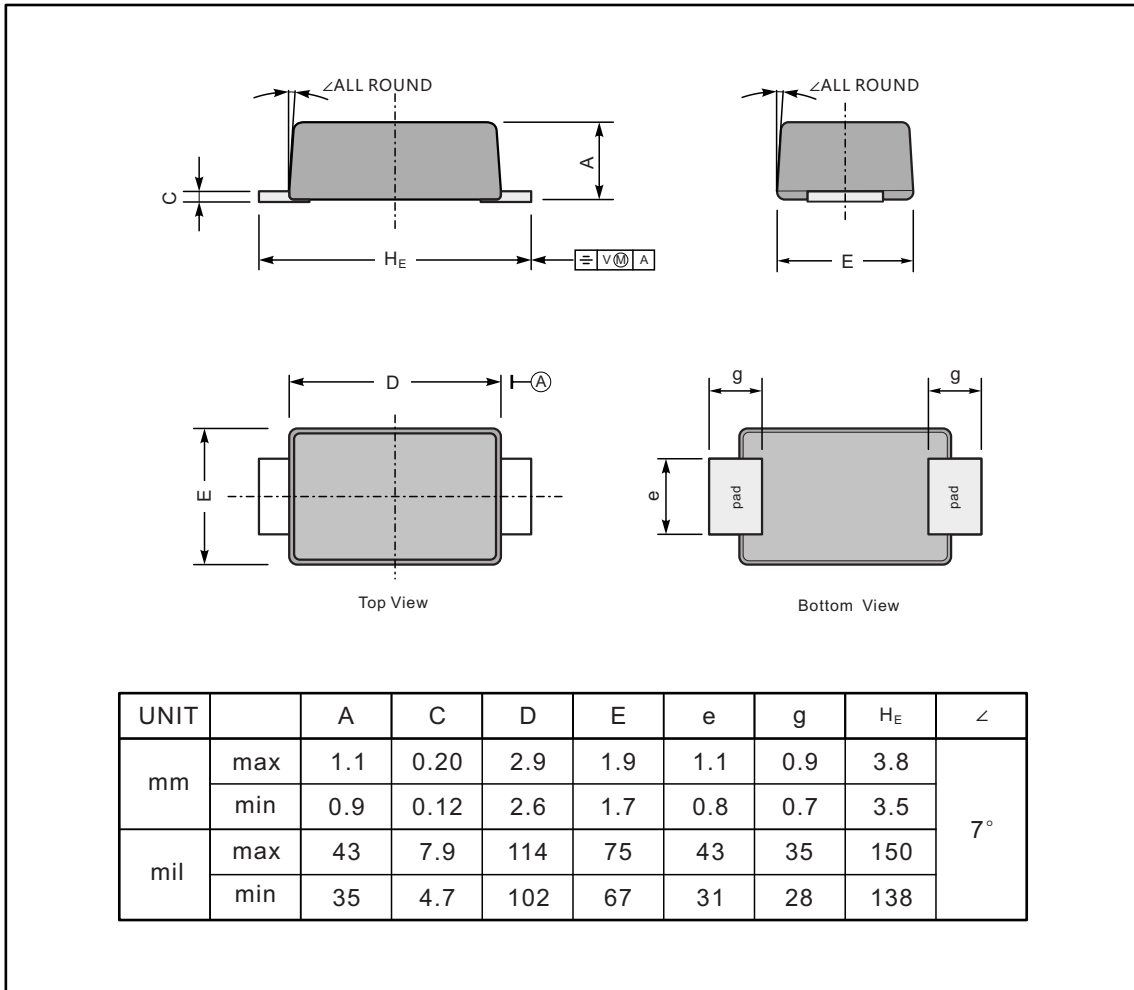
Fig.3: Power dissipation versus ambient temperature(maximum values)



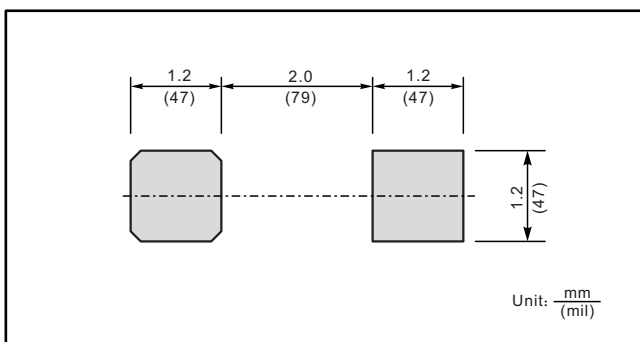
PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-123FL



The recommended mounting pad size



Marking

Type number	Marking code
DB3W	DB3W
DC34W	DC34W
DB4W	DB4W