

SOD-123FL Trigger Diode 触发二极管

■ Features 特点

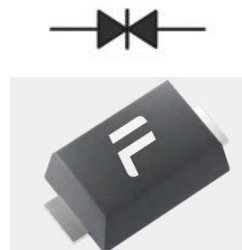
Bidirectional Trigger 双向触发

Thyristor phase control 可控硅导通角控制

For lamp-dimming, universal-motor speed controls

用于台灯调光及无刷马达速度控制

Marking 印字: DB3



■ Maximum Rating 最大额定值

($T_A=25^{\circ}\text{C}$ unless otherwise noted 如无特殊说明, 温度为 25°C)

Characteristic 特性参数	Symbol 符号	Rating 额定值	Unit 单位
Repetitive Peak On-state Current@ $t_p=20\mu\text{s}, f=100\text{Hz}$ 重复峰值通态电流	I_{TRM}	2	A
Power Dissipation 耗散功率	P_D	150	mW
Thermal Resistance Junction-Ambient 结到环境热阻	$R_{\theta JA}$	833	$^{\circ}\text{C}/\text{W}$
Junction/Storage Temperature 结温/储藏温度	T_J, T_{stg}	$-40\text{to}+125^{\circ}\text{C}$	$^{\circ}\text{C}$

■ Electrical Characteristics 电特性

($T_A=25^{\circ}\text{C}$ unless otherwise noted 如无特殊说明, 温度为 25°C)

Characteristic 特性参数	Symbol 符号	Min 最小值	Max 最大值	Unit 单位
Breakover Voltage 转折电压 @ $C = 22\text{ nF}$, see diagram 1	V_{BO}	28	36	V
Breakover Voltage Symmetry 转折电压偏差@ $C = 22\text{ nF}$, see diagram 1	$[+V_{BO} -V_{BO}]$		3	V
Dynamic Breakover Voltage 动态转折电压@ $\Delta I = [I_{BO} \text{ to } I_F = 10\text{ mA}]$	$ \Delta V_{\pm} $	5		V
Output Voltage 输出电压 See diagram 2	V_O	5		V
Breakover Current 转折电流 @ $C = 22\text{ nF}$	I_{BO}		50	μA
Leakage Current 漏电流 @ $V_B=0.5V_{BO}$	I_B		10	μA
Rise Time 上升时间 See diagram 3	T_r		2	μs

■ Typical Characteristic Curve 典型特性曲线

Diagram1: current-voltage characteristic

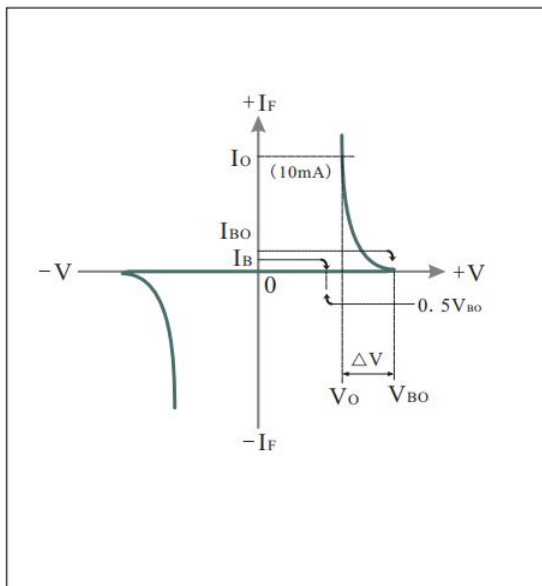


Diagram2: Test circuit for output voltage

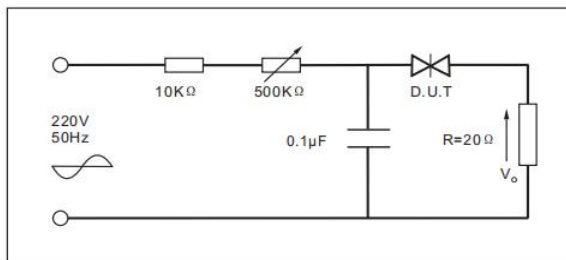


Diagram3: Test circuit see Fig.2. Adjust R for $I_p=0.5A$

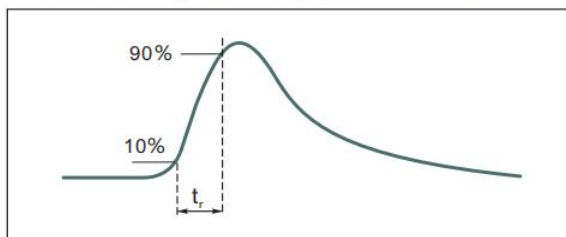


Fig.1: Power dissipation versus ambient temperature(maximum values)

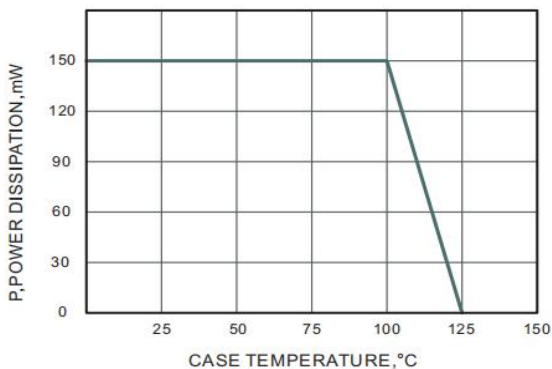


Fig.2: Power dissipation versus ambient temperature(maximum values)

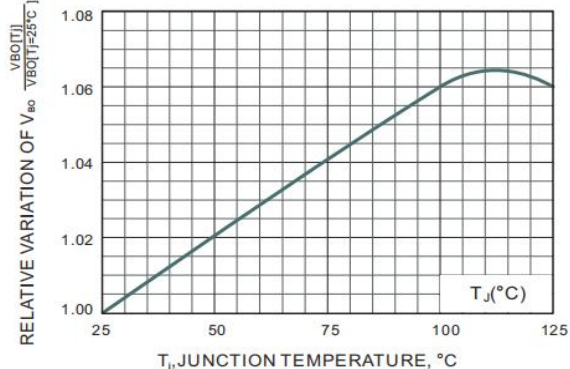
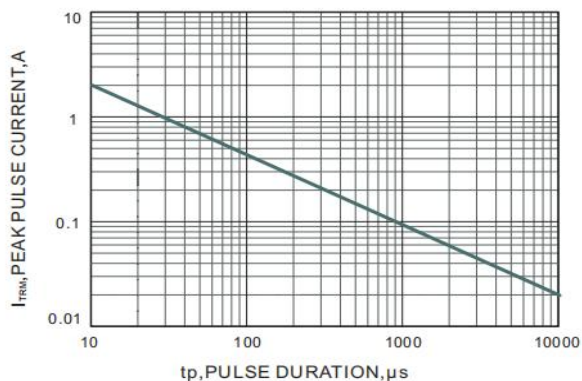
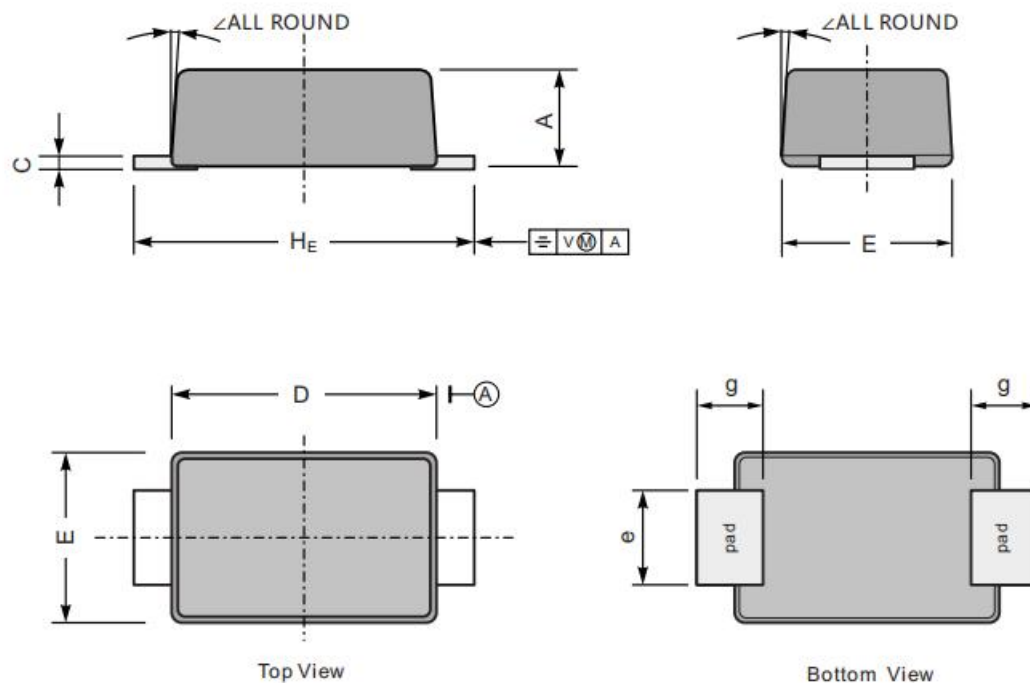


Fig.3: Power dissipation versus ambient temperature(maximum values)



■ Dimension 外形封装尺寸



UNIT		A	C	D	E	e	g	H_E	$\angle$
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	