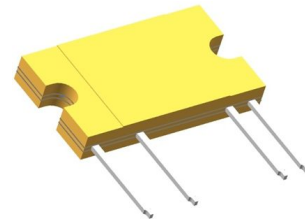


YAS2/D2P22——2A 700V SSR

概述 Features

- 厚度3.0mm SSR Thickness 3.0mm SSR
- 调相型 Random trigger
- 负载电流至2A Load current up to 2A
- 阻断电压700V Peak off-state voltage 700V
- 符合RoHS RoHS compliant

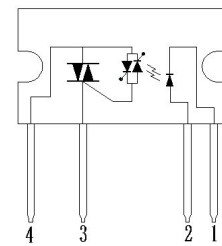


获得认证 Agency Approvals

- UL
- cUL
- TUV

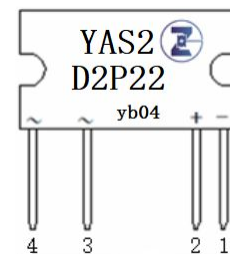
应用 Applications

- 家电产品（空调、冰箱、洗衣机、微波炉等的风扇、加热、进出水开关等控制）
Home appliances (air conditioners, microwave ovens, washing machines, personal hygiene systems, refrigerators, fan heaters, inductive heating cooker, and water heaters, etc.)
- 业控制 Industrial equipment.



打印标志 Marking Information

Part Number	Package	Marking
YAS2/D2P22	SIP4	YAS2 D2P22



极限值 Absolute Maximum Ratings

(Ta=25°C)

特性参数/Parameter		符号/Symbol	测试条件/Test Condition	最小值/Min.	典型值/Typ.	最大值/Max.	单位/Unit
输入端/Input	反向电流/LED reverse current	I_R	$V_R=5V$			10	μA
	正向电流/ LED forward current	I_F				50	mA
输出端/Output	断态泄漏电流/Output off-state leakage current	I_R	$V_b=700V$			10	μA
	阻断电压/ Repetitive peak off-state voltage	V_{DRM}				700	V
	额定电流/ On-state RMS current	I	$I_F=10mA$			2	A
	浪涌电流/ Surge current	I	50Hz, 1 cycle		30		A

电参数 Electrical Parameters

特性参数/Parameter		符号 /Symbol	测试条件 /Test condition	最小 值 /Min.	典型值 /Typ.	最大值 /Max.	单位 /Unit
输入端 Input	正向电压 /LED forward voltage	V_F	$I_F=10mA$		1.2	1.3	V
输出端 Output	额定电流 / On-state RMS current	I	$I_F=10mA$			2000	mA
	负载电压/Load voltage	V_{ac}		48		264	V
	电压指数上升率 /Critical rate of rise of off-state voltage	dv/dt	$V_{DM}=600V*1/\sqrt{2}$	200			V/ μs
	最小负载电流 /Min. load current	I		100			mA
耦合特性 Transfer characteristics	LED触发电流/LED trigger current *	I_{FT}	$V_0=6V, R_t=100\Omega$	5	8	10	mA
	推荐的工作电流 /Recommend operating current	I_{IN}		10		18	mA
	关断电压/ Must release voltage	V_{off}				1.2	V
	导通电压降/Output on-state voltage drop	V_T	$I_F=10mA, I_L=2A$ $V_D=6V$		1.2	1.5	V
	导通时间/Turn on time	t_{on}	$I_F=10mA,$ $V_D=6V, R_t=100\Omega$		0.01	1	ms
	关断时间/Turn off time	t_{off}				1+1/2cycle	ms
	绝缘电阻/Insulation Resistance	R_{iso}	500Vd.c	1000			M Ω
	介质耐压/ I/O Dielectric strength	V_{ISO}	$I_{off}\leq 0.5mA$	3000			V_{rms}
	工作温度/Operating temperature	T		-30		85	°C
储存温度/Store temperature			-40		125		

备注：1、介质耐压超过 3000V 建议在油里测试，在测试前请务必确认输入端和输出端已经分别短路。
2、带“*”参数为关键参数。

安规要求 Safety and insulation Ratings:

爬电距离 Creepage distance: 4.3mm, CTI ≥ 275 ;

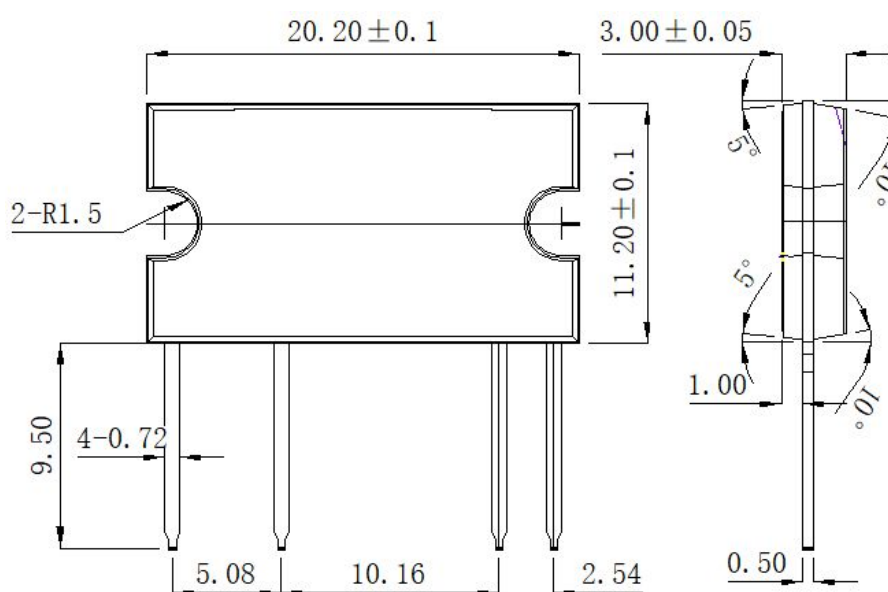
瞬时过电压 Highest allowable overvoltage 4000V;

再现峰值电压 V_{IORM} 769V;

局部放电 Partial discharge test voltage: 方法b Method b, $V_{pd} = V_{IORM} \times 1.6$ 1230V.

外形尺寸 Outline dimension :mm

1、SIP4

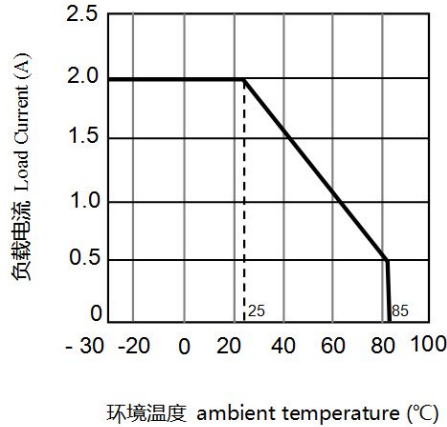


订货信息 Ordering Information

订货信息/Ordering Information							
	Y	AS	2/	D	2	P	22
公司商标代号 Company symbol							
交流输出型 AC SSR							
封装 Package: 2: SIP4							
输入端电流型 Current driving: D							
负载电流 Load current: 1-1A;1.2-1.2A;2-2A							
P:调相 Non zero-cross Z:过零 Zero-cross;							
负载电压 Load voltage: 22:220Vac;38:380Vac							

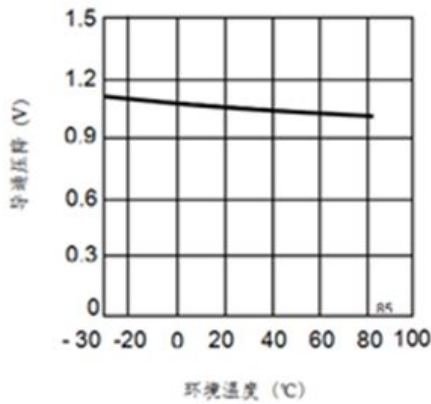
特性曲线 Characteristic Data

1. 负载电流与环境温度关系曲线 Load current VS. Ambient temperature



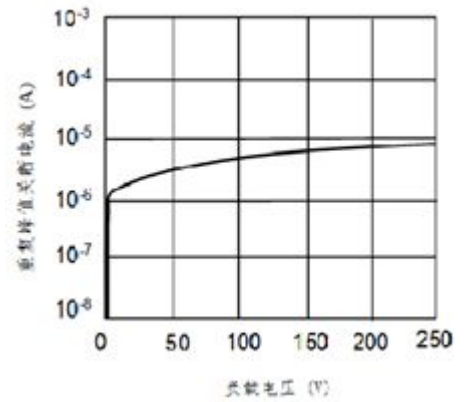
2. 导通压降—环境温度特性

On-state voltage drop VS. Ambient temperature



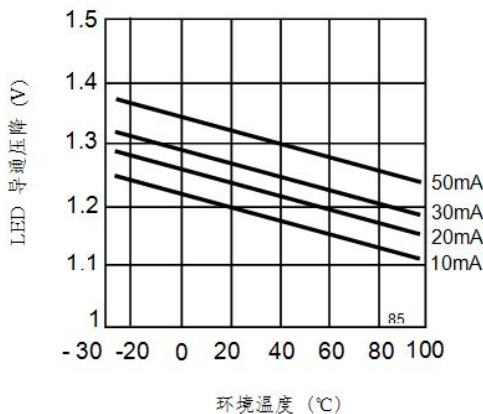
3. 重复峰值关断电流—负载电压

Repetitive peak turn off current—Load voltage



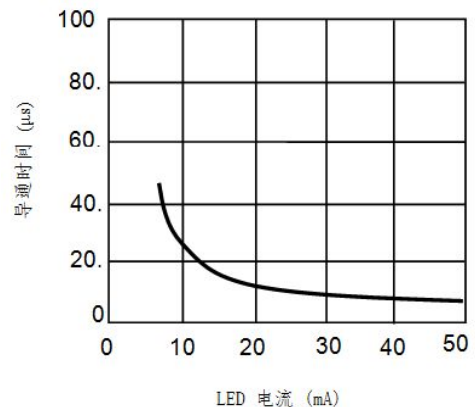
4. LED 导通压降—环境温度特性

LED dropout voltage vs. Ambient temperature
LED current: 10 to 50 mA

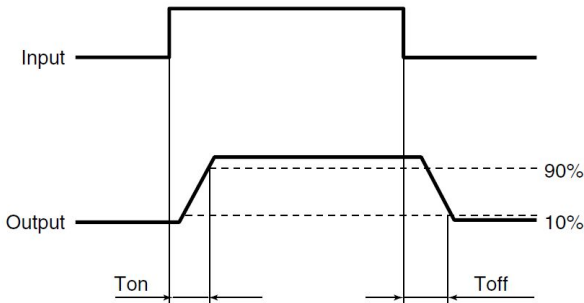


5. 导通时间—LED 电流特性

Turn on time vs. LED current

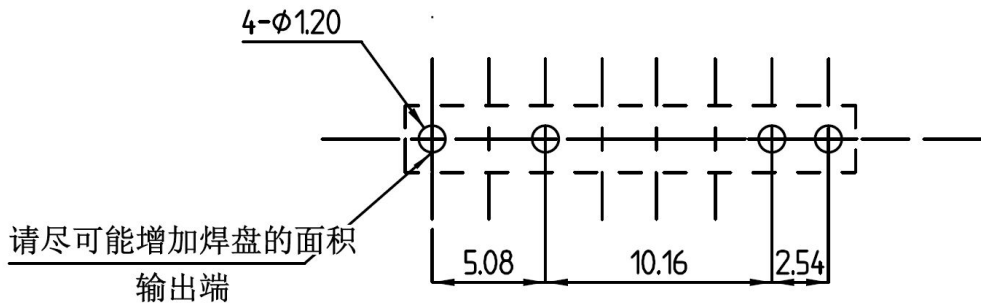


接通和关断时间关系 Turn on and Turn off time



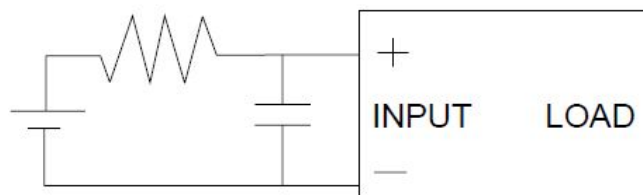
安装孔尺寸图 Fixing layout

Unit:mm



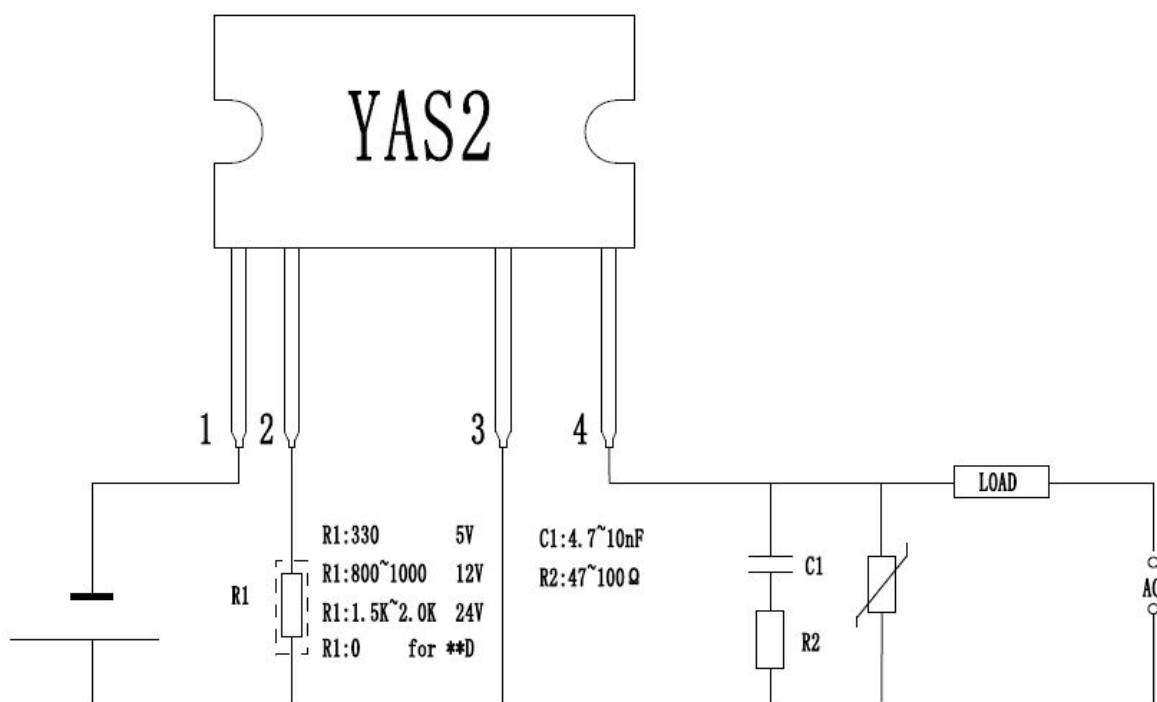
注意事项 Notes

- 工作环境温度超过 25℃时请降额使用，降额曲线参考附件。
When ambient temperature is above 25℃, the load current must be reduced. (see Characteristic Data 1)
- 继电器接线时，务必保证输入端极性的正确，以免损坏继电器。
Ensuring the polarity is correct when connecting the input lines, otherwise the wrong connection will damage the relay.
- 由于 SSR 动作时间很短，输入端的噪声可能会引起 SSR 误动作，所以在输入端环境噪声较大时，应在输入端接 R/C 回路吸收噪声。
Since the operate time of the relay is extremely short, any noise to input terminal will cause malfunction of the SSR, So a RC circuit should be connected to input terminal to absorb the noise in the noisy condition.



- 推荐的使用电路，输出端的尖峰电压可能会引起 SSR 误动作，所以请在输出端应加 R/C 回路或压敏电子吸收尖峰电压，具体见下图：

Below shows a recommend circuit: Please add a RC circuit or varistor on the load side, as noise/surge could damage the unit or cause malfunctions.



关于防静电对策 Cautions for Static Electricity

- 使用电烙铁时,对电烙铁前端进行接地。(建议使用低电压用的电烙铁。) When using soldering irons, either use irons with low leakage current, or ground the tip of the soldering iron. (Use of low-voltage soldering irons is also recommended.)
- 组装时使用的设备等也应正确地接地。 Devices and equipment used in assembly should also be grounded.

关于焊接 Soldering

继电器焊接,260 度情况下焊接时间不能超过 10 秒钟,350 度情况下焊接时间不能超过 5 秒钟。
Soldering must be completed within 10 seconds at 260°C or within 5 seconds at 350°C.