

YDS2/2A600V——2A 600V Opto-MOS

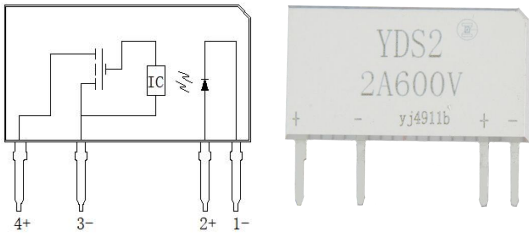
概述 Features

- 厚度3.0mm SSR Thickness 3.0mm SSR
- 负载电流最大为2A Max. load current 2A
- 击穿电压600V Breakdown voltage 600V
- 介质耐压3000V Dielectric strength 3000V
- 符合RoHS RoHS compliant



应用 Applications

- 测试设备 Measuring instruments
- 工业控制 Industrial control



打印标志 Marking information

Part number	Package	Marking
YDS2/2A600V	SIP4	YDS2 2A600V

极限值 Absolute maximum ratings

(Ta=25℃)

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	LED 反向电压/LED reverse voltage	V_R		6			V
	LED 正向电流/LED forward current	I_F				50	mA
	功耗/Power dissipation	P_{in}				75	mW
输出端 /Output	击穿电压/ Breakdown voltage	BV_{DSS}		600			V
	功耗/Power dissipation	P_{out}				2	W
	额定电流/On-state current	I_L	$I_{in}=10mA$			2	A
	峰值电流/Peak current	I_{peak}	10 ms (1shot), VL = DC		4		A
介质耐压/Dielectric strength *		V_{ISO}	$I_{ISO} \leq 0.3mA$	3000			V_{rms}
工作温度/Operating temperature		T_{opr}		-30		85	℃
储存温度/Storage temperature		T_{stg}		-40		125	℃

“*”： RH=40 to 60%, T=20~30℃, AC for 1minute.

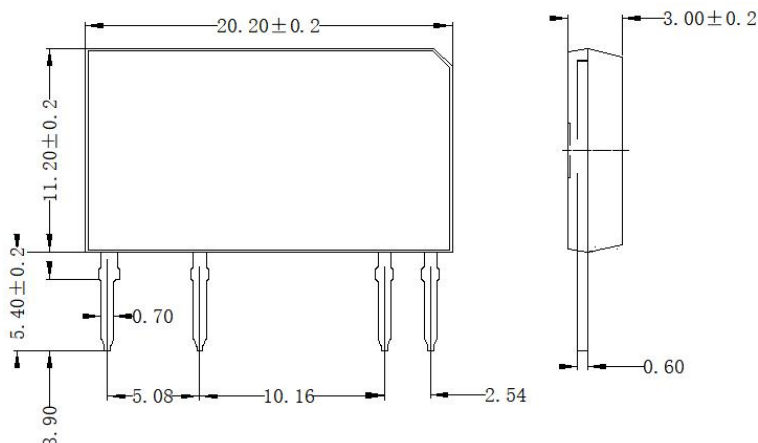
电参数 Electrical parameters

(Ta=25℃)

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	LED 正向电压/LED forward voltage	V_F	$I_F=10\text{mA}$		1.2	1.3	V
	LED 反向电流/LED reverse current	I_R	$V_R=5\text{V}$			10	μA
输出端/Output	断态泄漏电流/Output off-state leakage current	I_{Leak}	$V_0=600\text{V}$			5	μA
耦合特性 /Transfer characteristics	LED 触发电流/LED trigger current	I_{PT}			3	8	mA
	推荐的工作电流 /Recommend operating current	I_{in}		10		18	mA
	导通电阻/Output on-state resistance	R_{on}	$I_{\text{in}}=10\text{mA}$, $I_{\text{p}}=2\text{A}$			0.5	Ω
	导通时间/Turn on time	t_{on}	$I_{\text{in}}=10\text{mA}$, $I_{\text{p}}=1.0\text{A}$			5	ms
	关断时间/Turn off time	t_{off}	$I_{\text{in}}=10\text{mA}$, $I_{\text{p}}=1.0\text{A}$			2	ms
	电容/I/O capacitance	C				10	pF

外形尺寸 Outline dimension :mm

SIP4



注：未标公差为 $\pm 0.05\text{mm}$

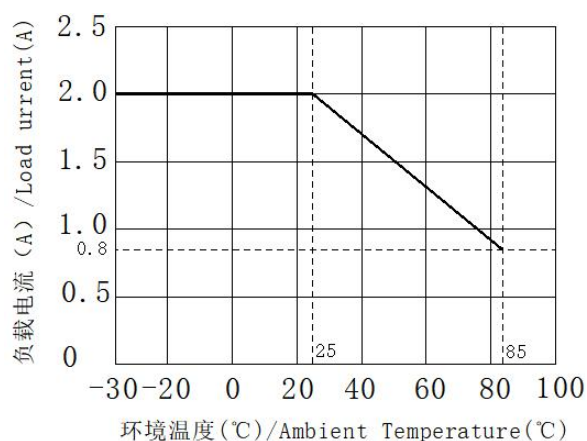
订货信息 Ordering information

订货信息/Ordering information					
	Y	DS	2/	2A	600V
公司商标代号 Company symbol					
光功率 MOS SSR: Opto- power MOS SSR					
封装 Package: 2: SIP4					
负载电流 Load current: 2A					
击穿电压 BV_{DSS} : 600V					

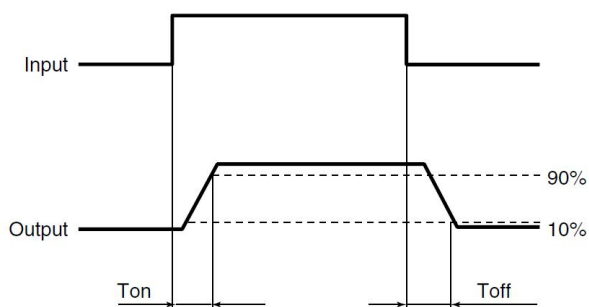
特性曲线 Characteristic data

1. 负载电流与环境温度关系曲线

Load current VS. ambient temperature

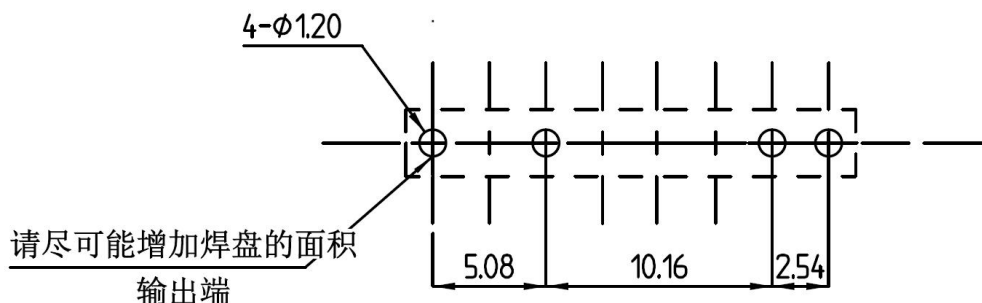


接通和关断时间关系 Turn on and turn off time



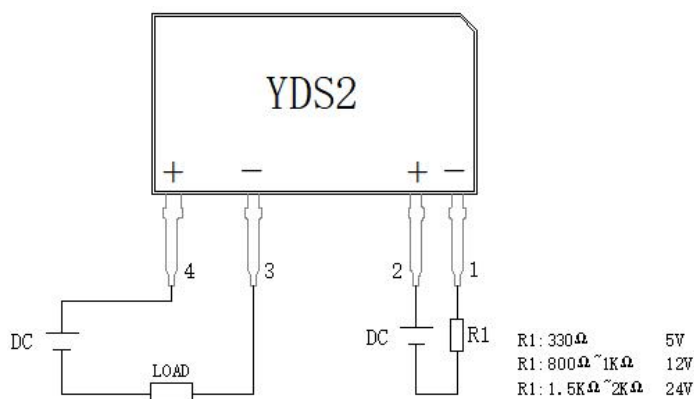
安装孔尺寸图 Fixing layout

Unit:mm



Please enlarge the solder pads of output.

接线图 Wiring diagram



注意事项 Notes

- a) 工作环境温度超过 25℃时请降额使用。参见特性曲线 1。

When ambient temperature is above 25℃, the load current must be reduced. (see characteristic data)

- b) 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.

关于防静电对策 Cautions for static electricity

- a. 操作 MOS 输出继电器的作业人员，请穿戴制电性作业服，通过 500kΩ~1MΩ 左右的保护电阻，实施人体接地。Employees handling relays should wear anti-static clothing and should be grounded through protective resistance of 500kΩ to 1MΩ.

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- b. 请在作业台上装有带导电性的金属板或具有防静电的专用板，并对测量仪器和治具等实施接地。 A conductive metal sheet should be placed over the work table. Measuring instruments and jigs should be grounded.
- c. 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.)
- d. 组装时使用的设备等也应正确的接地。 Devices and equipment used in assembly should also be grounded.
- e. 对印刷电路板和机器进行包装时，请避免使用发泡苯乙烯、聚乙烯等带电性的高分子材料。 When packing printed circuit boards and equipment, avoid using high-polymer materials such as foam styrene, plastic, and other materials which carry an electrostatic charge.
- f. 对MOS输出继电器进行储存和搬运时，请在不易产生静电的环境(例如湿度45~60%)中通过导电性包装材料进行保护。 When storing or transporting relays, the environment should not be conducive to generating static electricity (for instance, the humidity should be between 45 and 60%), and relays should be protected using conductive packing materials.