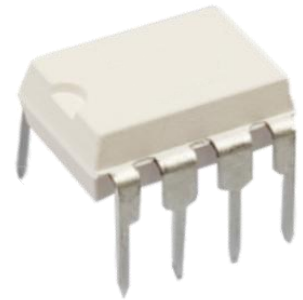


## YDS1/2006——2A 60V Opto-MOS

### 概述 Features

- 负载电流至2A Load current up to 2A
- 击穿电压60V Breakdown voltage 60V
- 介质耐压4000V Dielectric strength 4000V
- 符合RoHS RoHS compliant

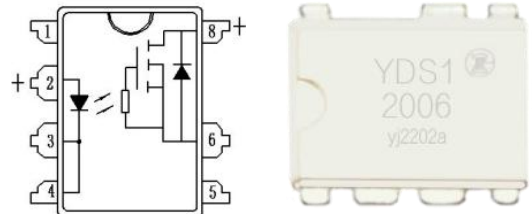


### 应用 Applications

- 高速检测设备 High-speed inspection machines
- 程控交换设备 Telephone equipment
- 计算机 Computer

### 打印标志 Marking information

Part number	Package	Marking
YDS1/2006	DIP7	YDS1 2006
YDS1/2006S	SMD7	YDS1 2006



### 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	$P_{in}$				50	mW
输出端/Output	击穿电压/ Breakdown voltage	$BV_{DSS}$		60			V
	功耗/Power dissipation	$P_{out}$				900	mW
	额定电流/On-state current	$I_L$	$I_{in}=10mA$			2	A
	峰值电流/Peak current	$I_{peak}$	100ms (1 shot), VL=DC		4		A
介质耐压/Dielectric strength *		$V_{ISO}$	$I_{ISO} \leq 0.3mA$	4000			$V_{rms}$
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.

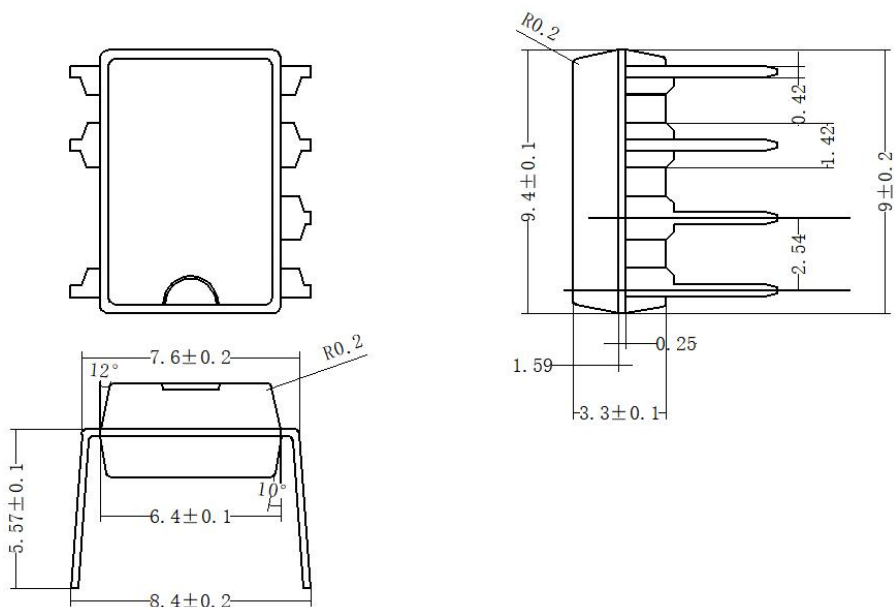
## 电参数 Electrical parameters

(Ta=25℃)

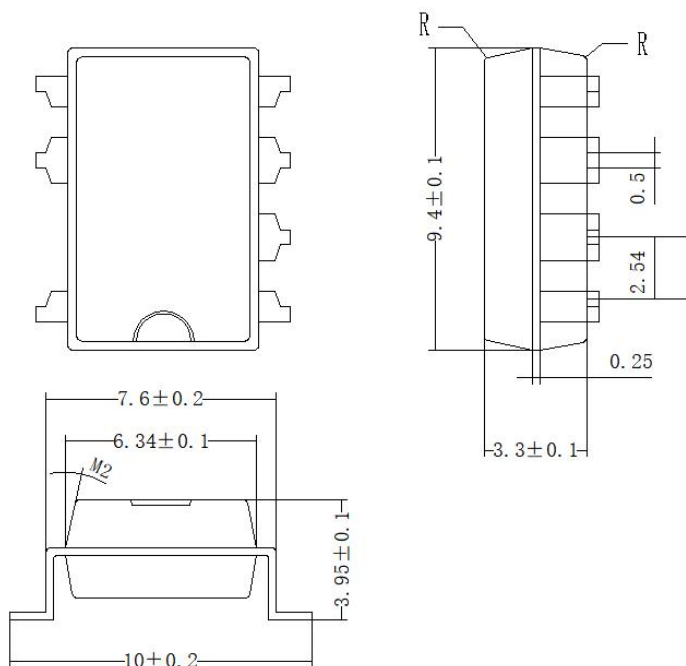
特性参数/Parameter		符号 /Symbol	测试条件 /Test condition	最小 值 /Min.	典型值 /Typ.	最大值 /Max.	单位 /Unit
输入端/Input	LED 正向电压 /LED forward voltage	$V_F$	$I_F=10mA$		1.2	1.3	V
	LED 反向电流/LED reverse current	$I_R$	$V_R=5V$			10	$\mu A$
输出端/Output	断态泄漏电流/Output off-state leakage current	$I_{Leak}$	$V_o=60V$			10	$\mu A$
耦合特性 /Transfer characteristics	LED 触发电流/LED trigger current	$I_{FT}$			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	$R_{on}$	$I_{in}=10mA, I_D=2A$			0.3	$\Omega$
	导通时间/Turn on time	$T_{on}$	$I_{in}=10mA, I_D=400mA$			2	ms
	关断时间/Turn off time	$T_{off}$	$I_{in}=10mA, I_D=400mA$			1	ms
	电容/I/O capacitance	C				10	pF

外形尺寸 Outline dimension :mm

1、DIP7



2、SMD7



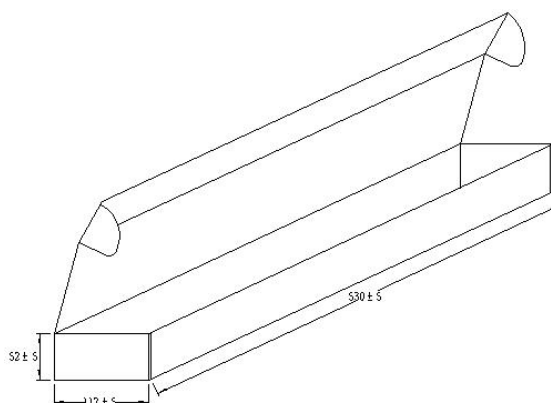
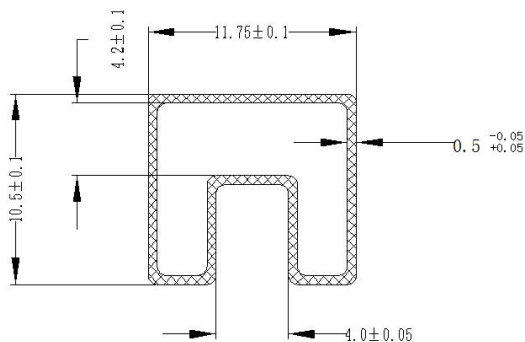
## 订货信息 Ordering information

订货信息/Ordering information						
	Y	DS1	B/	200	6	D/S
公司商标代号 Company symbol						
DIP7 MOS 直流输出: DIP7 MOS DC Output SSR						
常开型 N.O.: 默认 Nil 常闭型 N.C.: B						
负载电流 Load current: 30-300mA ;200-2A ;以此类推						
击穿电压 $BV_{DSS}$ : 6-60V; 10-100V; 50-500V						
D: DIP (Nil) S: SMD						

## 包装信息 Package specification

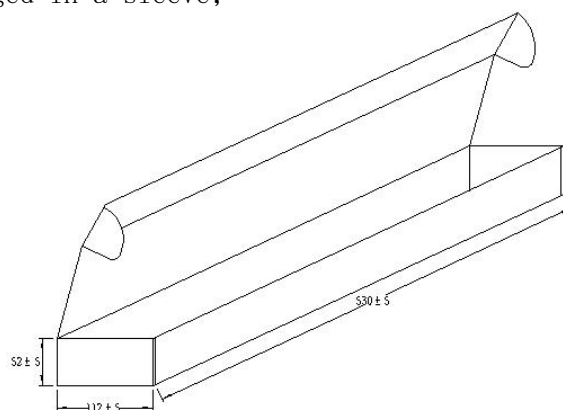
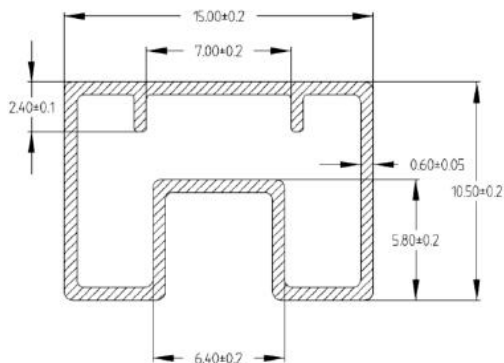
### DIP7:

每管最多装 50 个/MAX. 50pcs of products shall be packaged in a sleeve;  
每盒最多装40条/MAX. 40 sleeves in one case.



### SMD7:

每管最多装 50 个/MAX. 50pcs of products shall be packaged in a sleeve;  
每盒最多装30条/MAX. 30 sleeves in one case.

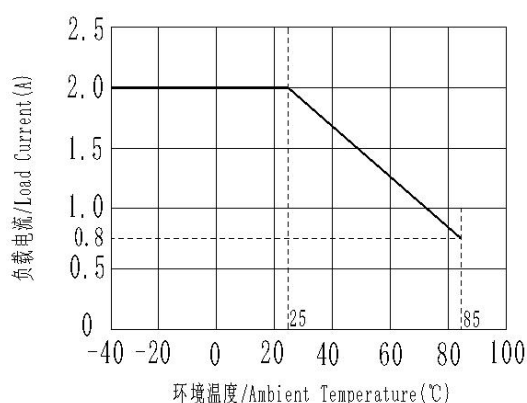


## 安规要求 Safety and insulation ratings

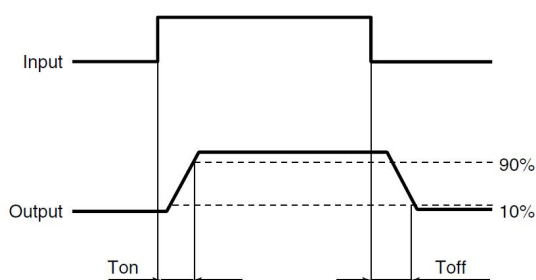
爬电距离	Creepage distance	5.0mm, CTI $\geq$ 275;
瞬时过电压	Highest allowable overvoltage	5000V;
再现峰值电压	$V_{IORM}$	769V;
局部放电	Partial discharge test voltage method b, $V_{Pd} = V_{IORM} \times 1.6$	1230V.

## 特性曲线 Characteristic data

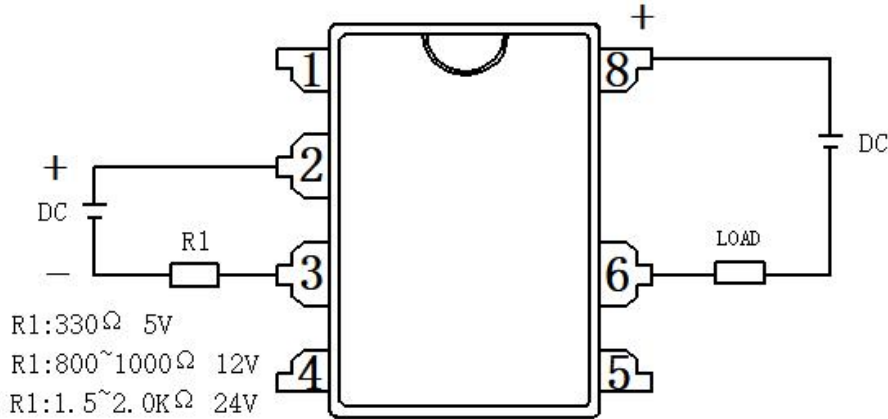
### 1. 负载电流与环境温度关系曲线 Load current VS. ambient temperature



## 接通和关断时间关系 Turn on and turn off time

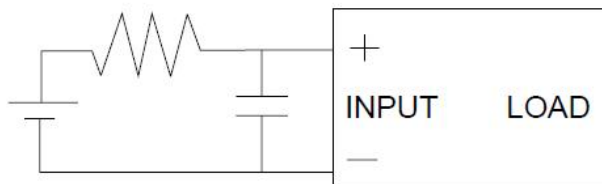


## 接线图 Wiring diagram



## 注意事项 Notes

- 工作环境温度超过 25°C 时请降额使用。参见特性曲线 1。  
When ambient temperature is above 25°C, the load current must be reduced. (see characteristic data )
- 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 回路或压敏电阻吸收尖峰电压。

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.

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## 关于防静电对策 **Cautions for static electricity**

- a. 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.)
- b. 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.

## 关于焊接 **Soldering**

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