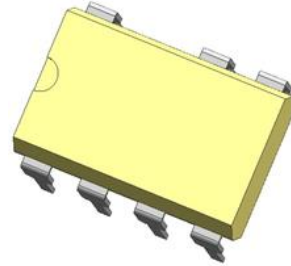


YDS2006——60V 2000mA Opto-MOS

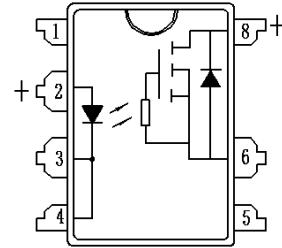
概述/ Features

- 光电隔离 Optoelectronic isolation
- 负载电流最大为2000mA Max load current 2000mA
- 负载耐压60V High load voltage 60V
- 介质耐压4000V Dielectric Strength 4000V
- 符合RoHS RoHS compliant



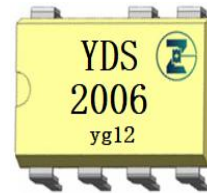
应用/Applications

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



订货信息/Ordering Information

Part Number	Package	Marking
YDS/2006	DIP7	YDS 2006
YDS/2006S	SMD7	YDS 2006



极限值/ Absolute Maximum Ratings

$T_A=25^{\circ}\text{C}$ unless otherwise noted

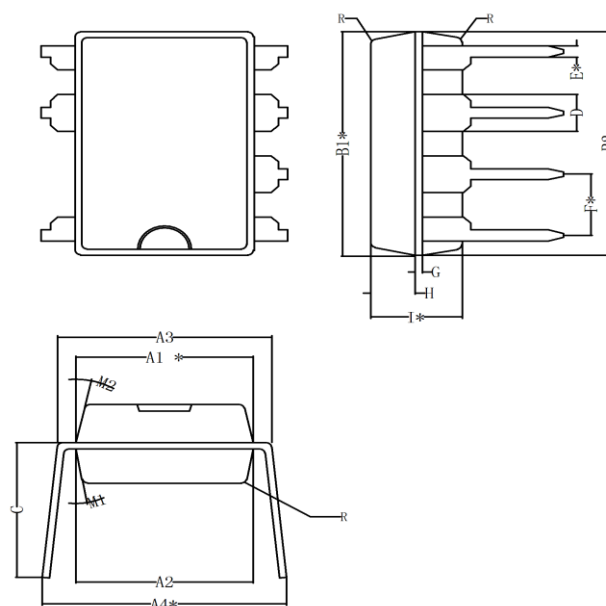
特性参数/Parameter		符号/Symbol	测试条件/Test condition	最小值/Min.	典型值/Typ.	最大值/Max.	单位/Unit
输入端/Input	正向电压/LED forward current	V_F	$I_F=10\text{mA}$		1.2	1.3	V
	反向电流/LED reverse voltage	I_R	$V_R=5\text{V}$			10	μA
	功耗/Power dissipation	P_{in}				50	mW
输出端/Output	断态泄漏电流/Output off-state leakage current	I_R	$V_D=60\text{V}$			10	μA
	功耗/Power dissipation	P_{out}				800	mW
	额定连续电流/Continuous rating current	I				2000	mA
	峰值电流/Peak current	I	A connection: 100 ms (1 shot), $V_L = \text{DC}$		4000		mA

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
LED 触发电流/trigger current	I_{FT}		5	8	10	mA
推荐的工作电流/Recommend operating current	I_{IN}		10		18	mA
耦合特性/Transfer characteristics						
导通电阻/Output on-state resistance	R_{ON}	$I_F=10mA, I_D=900mA$			0.1	Ω
导通时间/Turn on time	t_{on}	$I_F=10mA, I_D=400mA$		0.5	2	ms
关断时间/Turn off time	t_{off}	$I_F=10mA, I_D=400mA$			1	
介质电压/Dielectric Strength	V_{ISO}	$I_{off} \leq 0.3mA$	4000			V_{rms}
电容/capacitance (I/O)	C			200		pF
储存温度/Store temperature	T		-40		125	$^{\circ}C$
工作温度/Operating temperature			-40		85	

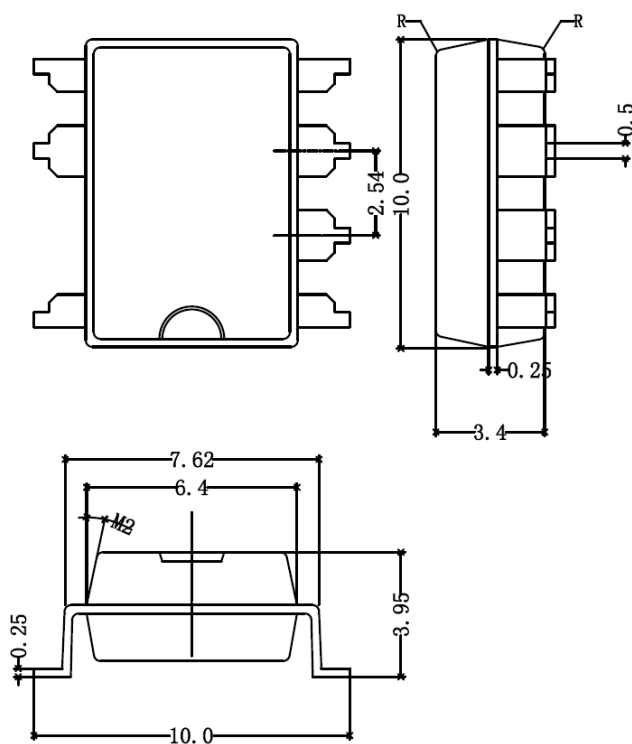
外形尺寸/Outline dimension : mm

1、DIP



符号	最小	典型	最大	符号	最小	典型	最大
A1*	6.13	6.33	6.53	E*	0.34	0.42	0.50
A2	6.22	6.42	6.62	F*		2.54	
A3	7.32	7.62	7.92	G		0.25	
A4*	8.10	8.40	8.70	H	1.39	1.59	1.79
B1*	9.00	9.20	9.40	I*	3.07	3.27	3.47
B2	9.05	9.25	9.45	R		0.20	
C		5.57		M1		10°	
D		1.52		M2		12°	

2、SMD



注1：未注公差请按±0.2；

注2：带“*”尺寸为关键尺寸。

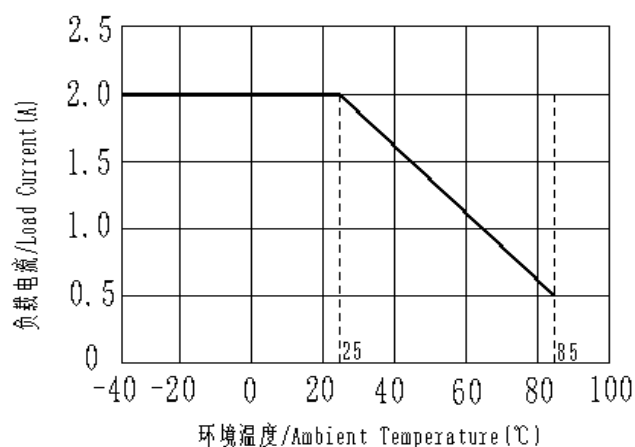
订货标记/Order information

订货标记示例/Order information							
	Y	DS	B/	200	6	D	7
公司商标代号 Company symbol							
MOS 输出型 SSR							
常开型 normal open: 默认 nil							
常闭型 normal close: B							
负载电流 load current: 30—300mA; 100—1000mA 以此类推							
击穿电压 BVDSS: 6—60V; 10—100V; 50—500V							
D: DIP (nil)		S: SMD					
6: PIN		7: 7PIN (nil)		8: 8PIN 以此类推			

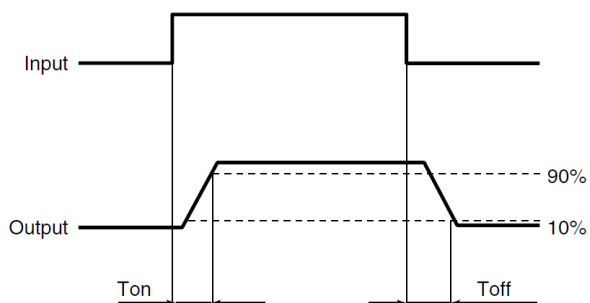
特性曲线 Characteristic Data

1. 负载电流与环境温度关系曲线

Load current VS. Ambient temperature



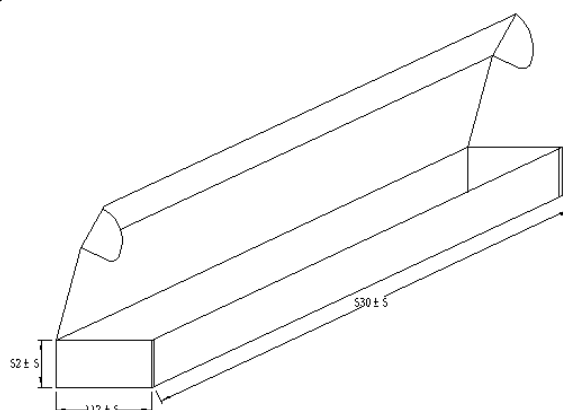
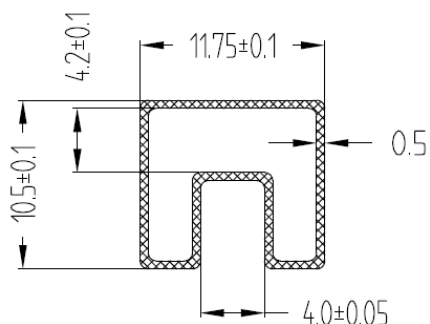
接通和关断时间关系 Turn on and Turn off time



包装信息/Package specification

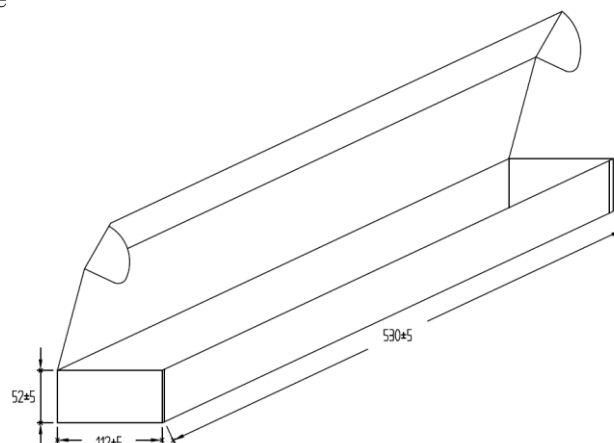
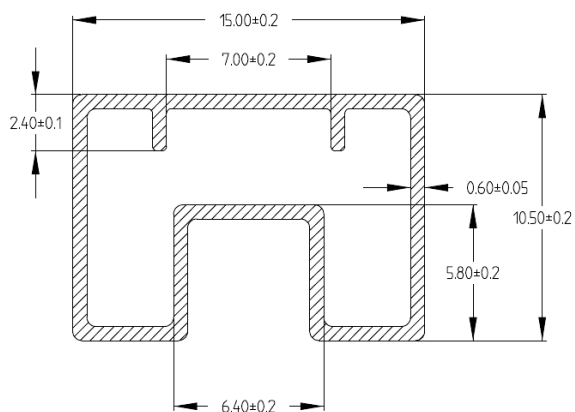
DIP:

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.



SMD:

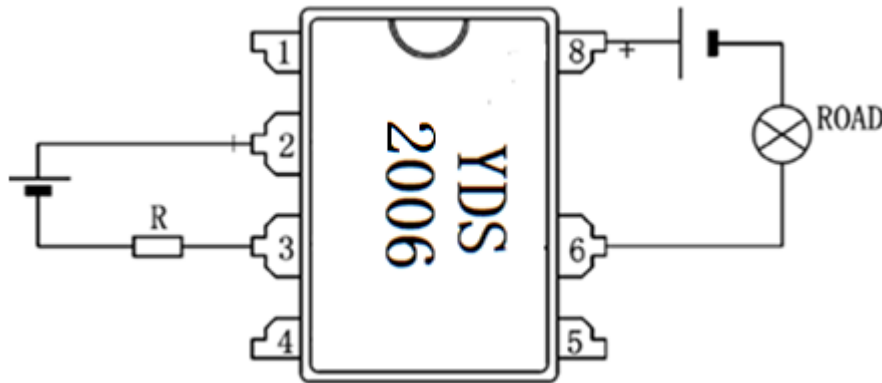
每管最多装50个/MAX. 50pcs of products shall be packaged in a sleeve;
每盒最多装30条/MAX. 30 sleeves in one case



安规要求/Safety and Insulation Ratings

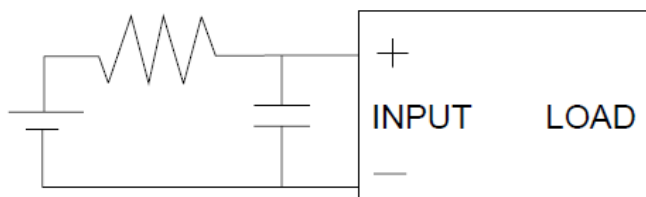
爬电距离	Creepage distance	5.0mm, CTI \geq 275;
瞬时过电压	Highest allowable overvoltage	5000V;
再现峰值电压	V_{FORM}	769V;
局部放电	Partial discharge test voltage Method b, $V_{Pd} = V_{FORM} \times 1.6$	1230V.

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，降额曲线参考附件。
When ambient temperature is above 25°C, 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.



d) 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

- e) 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.)
- f) b. 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.