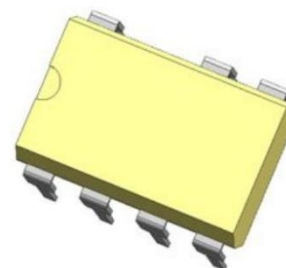


YDS1006——2A 60V Opto-Mos

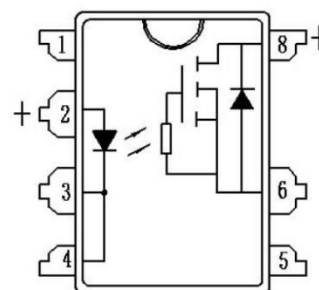
概述 Features

- 光电隔离 Optoelectronic isolation
- 负载电流至2A Load current up to 2A
- 阻断电压60V Peak off-state voltage 60V
- 介质耐压3750V Dielectric Strength 3750V
- 符合RoHS RoHS compliant



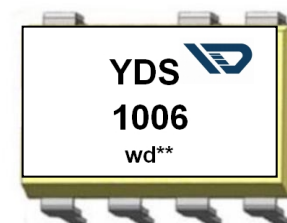
应用 Applications

- 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
YDS1006	DIP7	YDS 1006
YDS1006S	SMD7	YDS 1006



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	正向电压/LED forward voltage	V_R	$I_f=10mA$		1.2	1.3	V
	反向电流/ LED reverse current	I_R	$V_R=5V$			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	$V_0=60V$			10	μA
	功耗/Power dissipation	P_{out}				900	mW
	额定连续电流/Continuous rating current	I			900	2000	mA
	峰值电流/ Peak current	I	A connection: 100ms (1 shot), VL=DC		2800		mA



电参数 **Electrical Parameters**

(Ta=25℃)

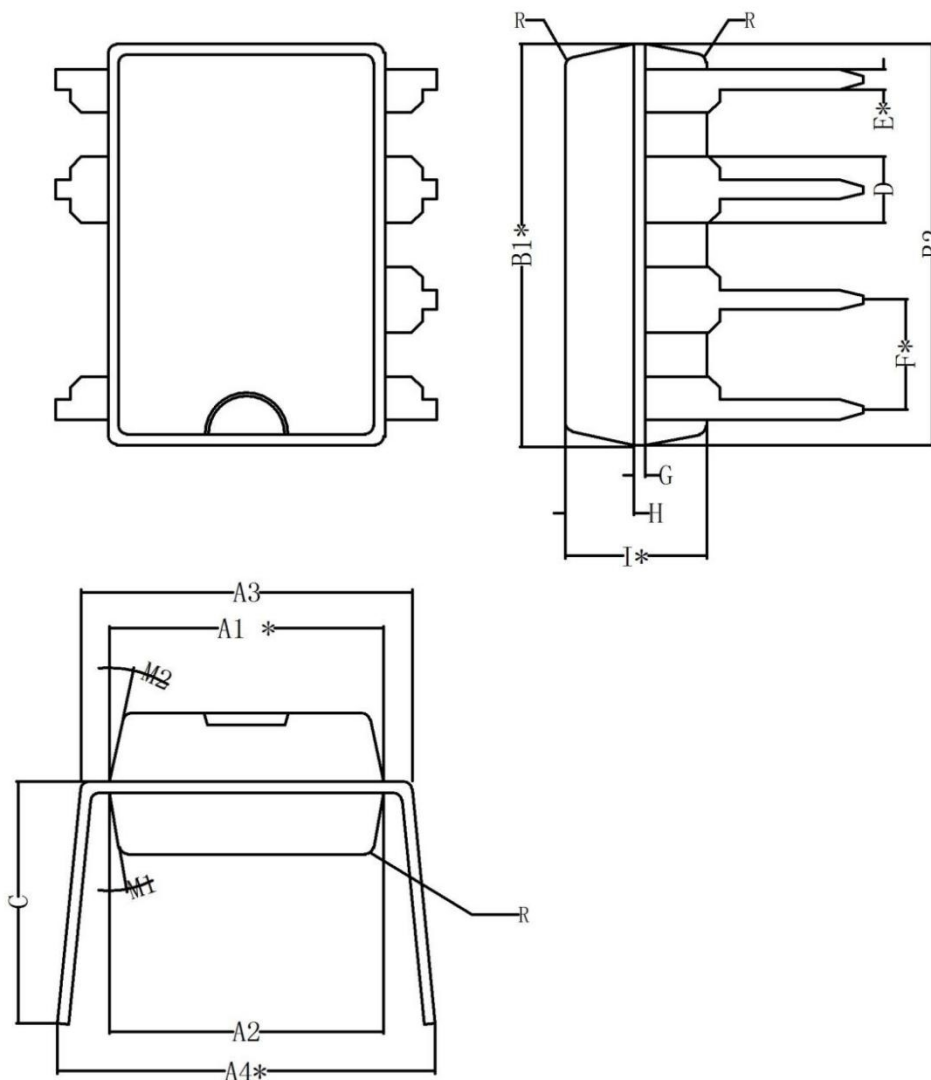
特性参数/Parameter		符号 /Symbol	测试条件 /Test condition	最小 值 /Min.	典型值 /Typ.	最大值 /Max.	单位 /Unit
耦合特性 /Transfer characteristics	LED 触发电流 /LED trigger current	I_{FT}		5	8	10	mA
	推荐的工作电流 /Recommend operating current	I_{IN}		10		18	mA
	导通电阻 / Output on-state resistance	I_{ON}	$I_F=10mA, I_D=1000mA$		0.06	0.1	Ω
	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	
	介质耐压 / I/O Dielectric strength *	V_{ISO}	$I_{off} \leq 0.3mA$	3750			V_{rms}
	电容/ I/O capacitance	C			300		pF
	工作温度/Operating temperature	T		-40		85	℃
	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。



外形尺寸 **Outline dimension :mm**

1、DIP7



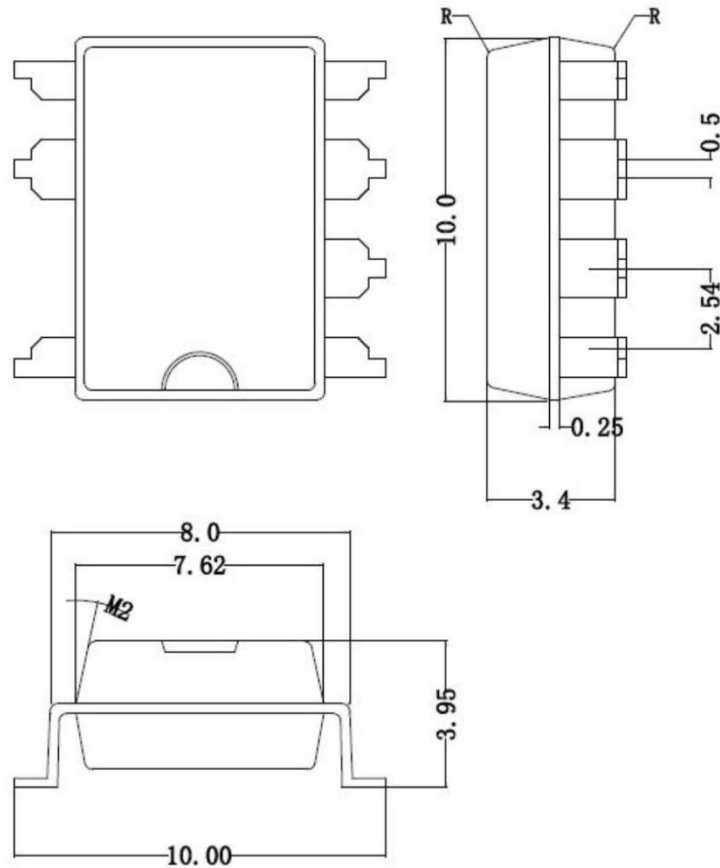
符号	最小	典型	最大	符号	最小	典型	最大
A1*	6.13	6.33	6.53	E*	0.34	0.42	0.50
A2	6.22	6.42	6.62	F*		2.54	
A3	7.32	7.62	7.92	G		0.25	
A4*	8.10	8.40	8.70	H	1.39	1.59	1.79
B1*	9.00	9.20	9.40	I*	3.07	3.27	3.47
B2	9.05	9.25	9.45	R		0.20	
C		5.57		M1		10°	
D		1.52		M2		12°	

注1: 未注公差请按±0.2;

注2: 带“*”尺寸为关键尺寸。



2、SMD7



注1：未注公差请按±0.2。

订货信息 Ordering Information

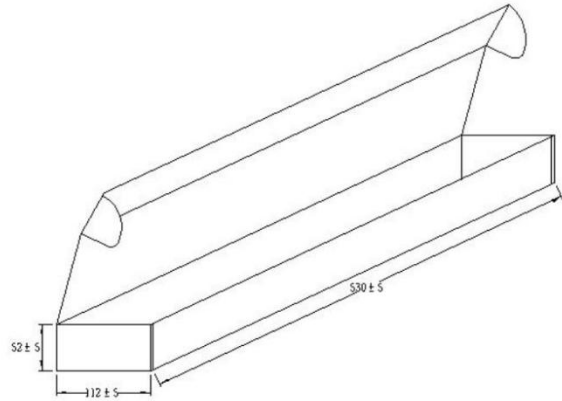
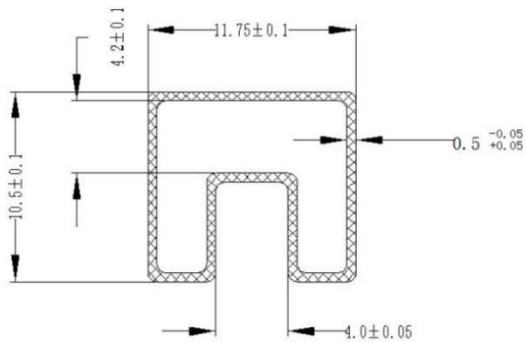
订货信息/Ordering Information						
	Y	DS	B/	100	6	D/S
公司商标代号 Company symbol						
DIP7 MOS 输出型						
常开型 normal open: 默认 nil						
常闭型 normal close: B						
负载电流 Load current: 100-1000mA 200-2000mA						
击穿电压 BVDSS: 6-60V; 10-100V; 20-200V; 35-350V; 50-500V						
D: DIP S: SMD						



包装信息 Package specification

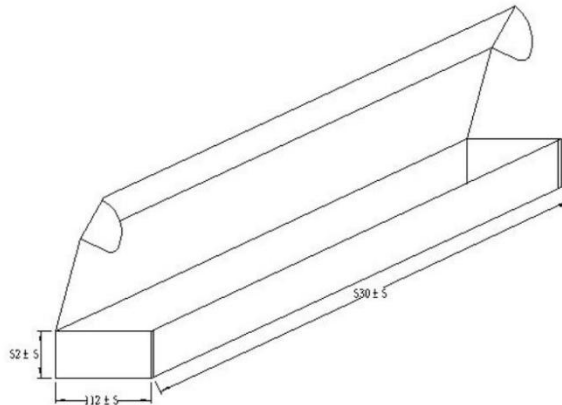
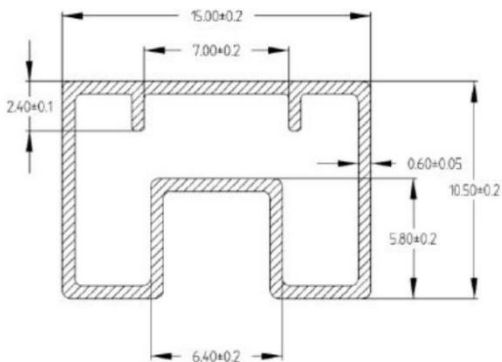
DIP7:

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
Highest allowable overvoltage

V_{10RM}

Partial discharge test voltage Method b, $V_{Pd} = V_{10RM} \times 1.6$

5.0mm, CTI ≥ 275 ;

5000V;

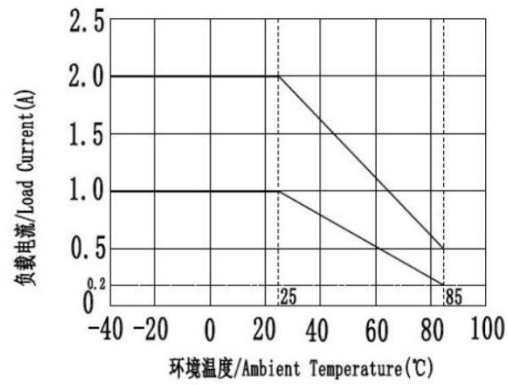
769V;

1230V.

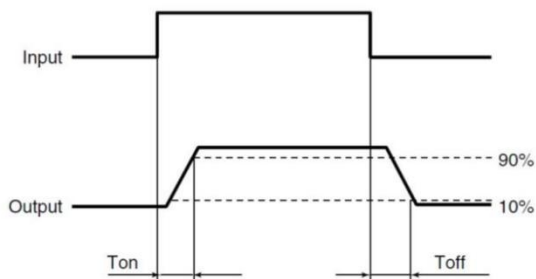


特性曲线 Characteristic Data

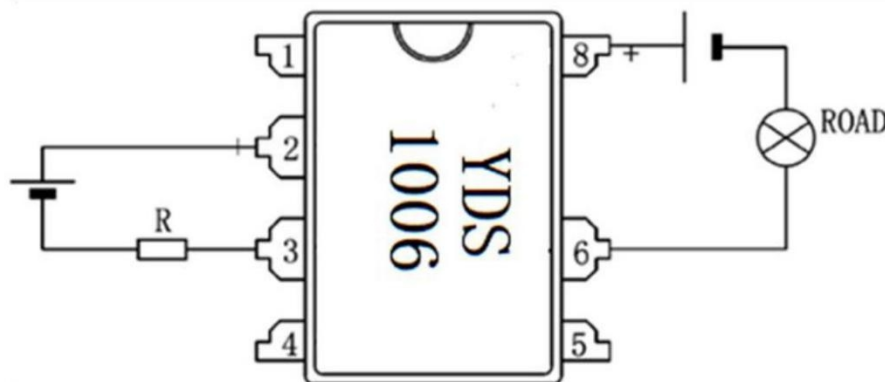
1. 负载电流与环境温度关系曲线 Load current VS. Ambient temperature



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**

a) 工作环境温度超过 25°C 时请降额使用，降额曲线参考附件。

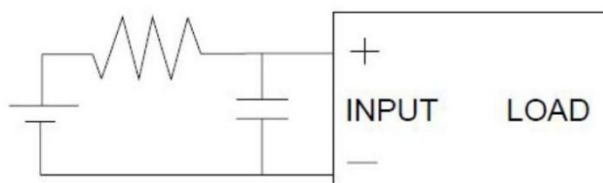
When ambient temperature is above 25°C, the load current must be reduced. (see Characteristic Data 1)

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.

c) 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。

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**

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.