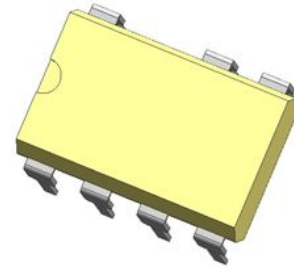


YDS1006——2A 60V Opto-Mos

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

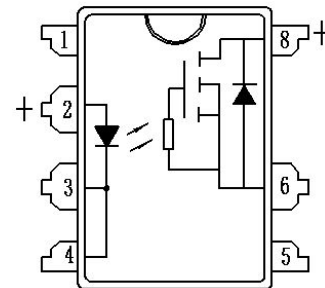


获得认证 Agency Approvals

- UL
- cUL
- TUV

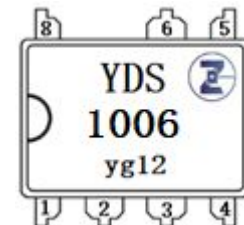
应用 Applications

- 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	$V_o=60V$			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

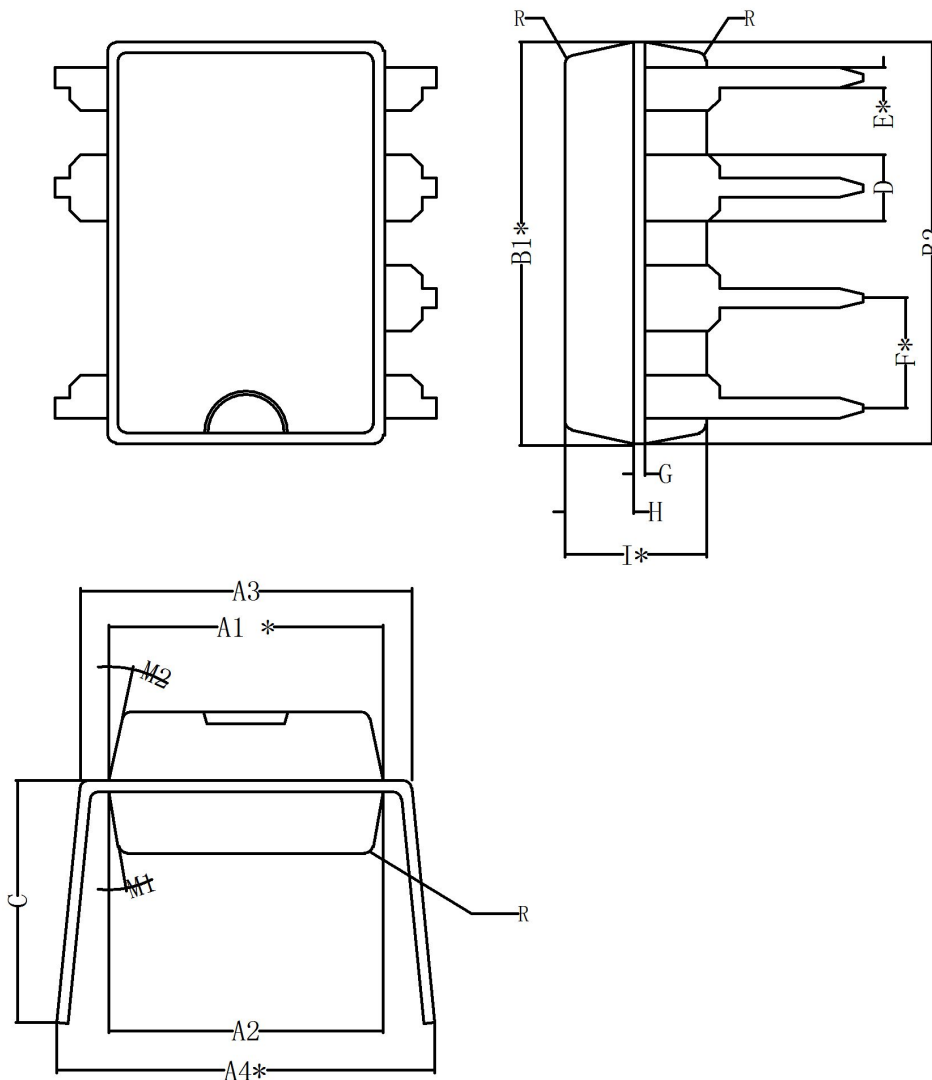
(Ta=25℃)

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

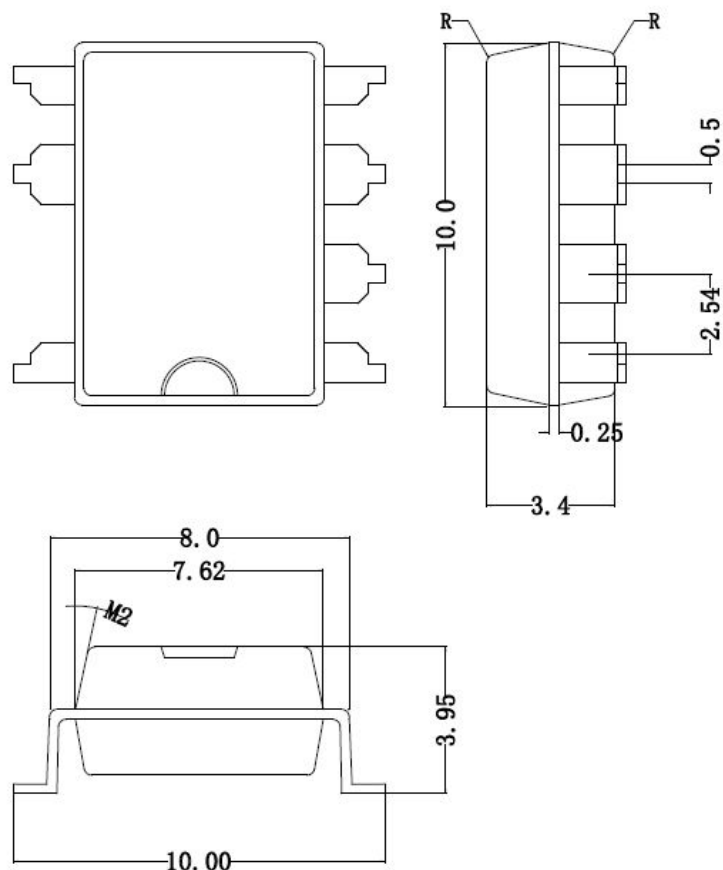


符号	最小	典型	最大	符号	最小	典型	最大
A1*	6.13	6.33	6.53	E*	0.34	0.42	0.50
A2	6.22	6.42	6.62	F*		2.54	
A3	7.32	7.62	7.92	G		0.25	
A4*	8.10	8.40	8.70	H	1.39	1.59	1.79
B1*	9.00	9.20	9.40	I*	3.07	3.27	3.47
B2	9.05	9.25	9.45	R		0.20	
C		5.57		M1		10°	
D		1.52		M2		12°	

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。

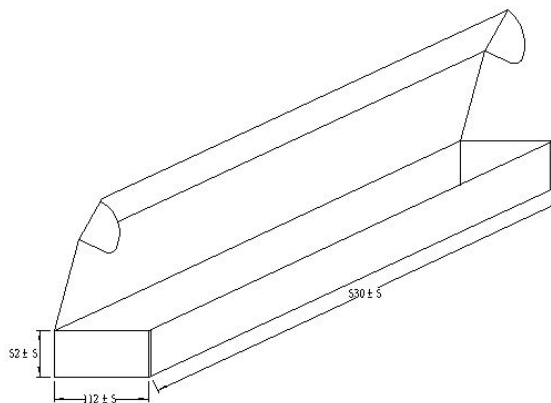
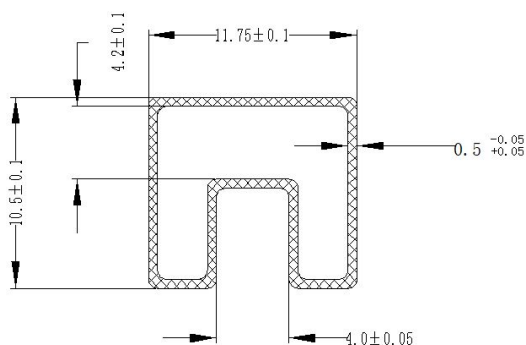
订货信息 Ordering Information

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

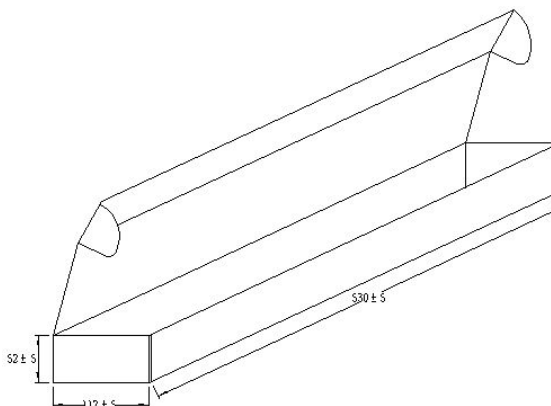
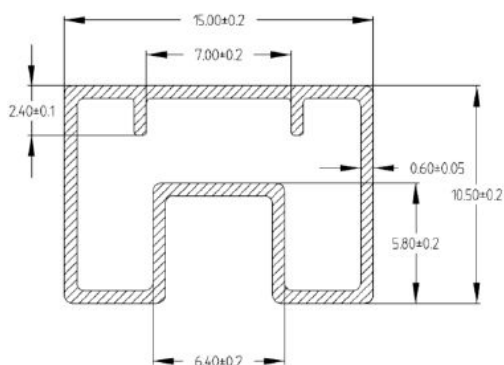
DIP7:

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.



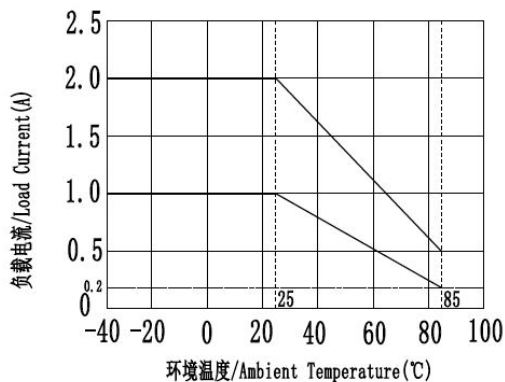
安规要求 Safety and Insulation Ratings

爬电距离	Creepage distance	5.0mm, CTI ≥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.

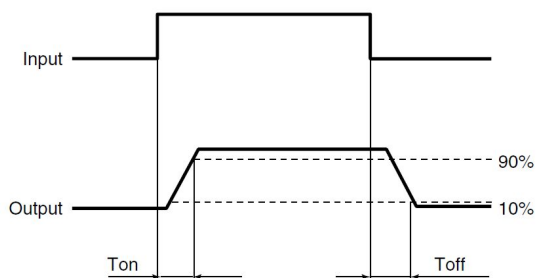
特性曲线 Characteristic Data

1. 负载电流与环境温度关系曲线

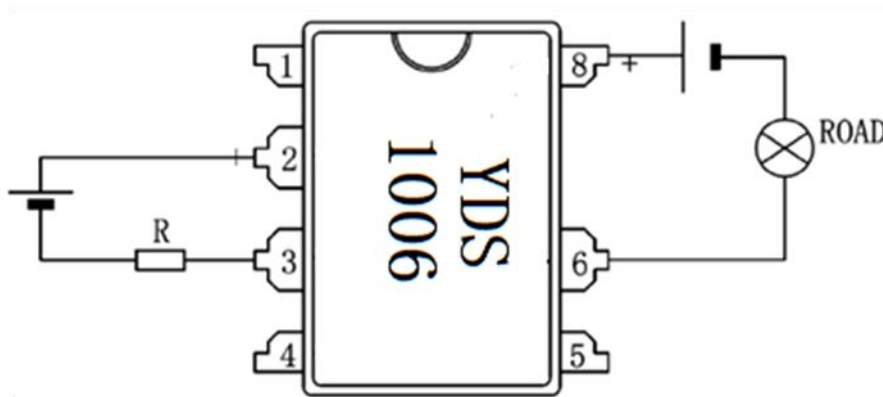
Load current VS. Ambient temperature



接通和关断时间关系 Turn on and Turn off time

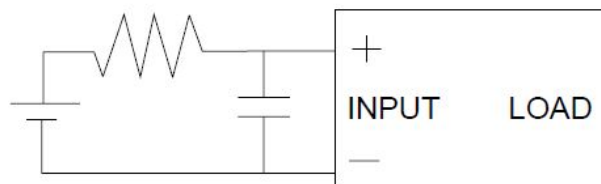


接线图 Wiring diagram



注意事项 Notes

- a) 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)
- 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℃ or within 5 seconds at 350℃.