



## YOM1006D/S6——60V 1000mA Opto-MOS

### 概述/General Features

- 光电隔离/ optoelectronic isolation
- 负载电流最大为1000mA/Max load current 1000mA
- 负载耐压60V/High load voltage 60V
- 介质耐压5000V / Dielectric Strength 5000V
- 符合RoHS/RoHS compliant

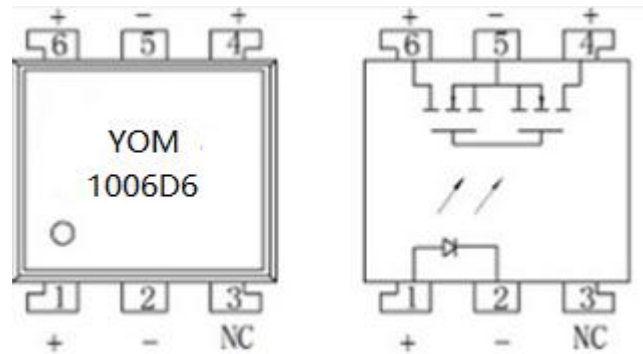


### 应用/Applications

- 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
<b>YOM1006D6</b>	DIP6	<b>1006D6</b>
<b>YOM1006S6</b>	SMD6	<b>1006S6</b>



### 极限值/Absolute Maximum

TA=25°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	$V_F$	$I_F=10mA$		1.15		V
	反向电流/LED reverse voltage	$I_R$	$V_R=5V$			10	$\mu A$
	功耗/Power dissipation	$P_{in}$				50	mW
输出端/Output	断态泄漏电流/Output off-state leakage current	$I_R$	$V_D=60V$			1000	nA
	功耗/Power dissipation	$P_{out}$				800	mW
	额定连续电流/ Continuous rating current	I			900	1000	mA
	峰值电流/Peak current	I	A connection: 100 ms (1 shot), $V_L = DC$		1800		mA

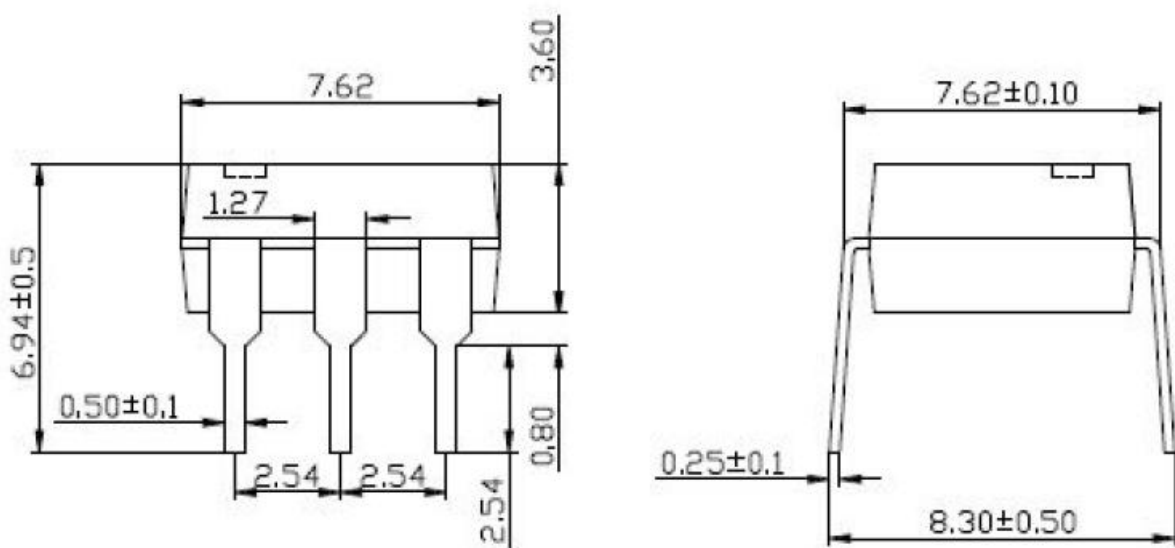


### 电参数/Electrical parameter

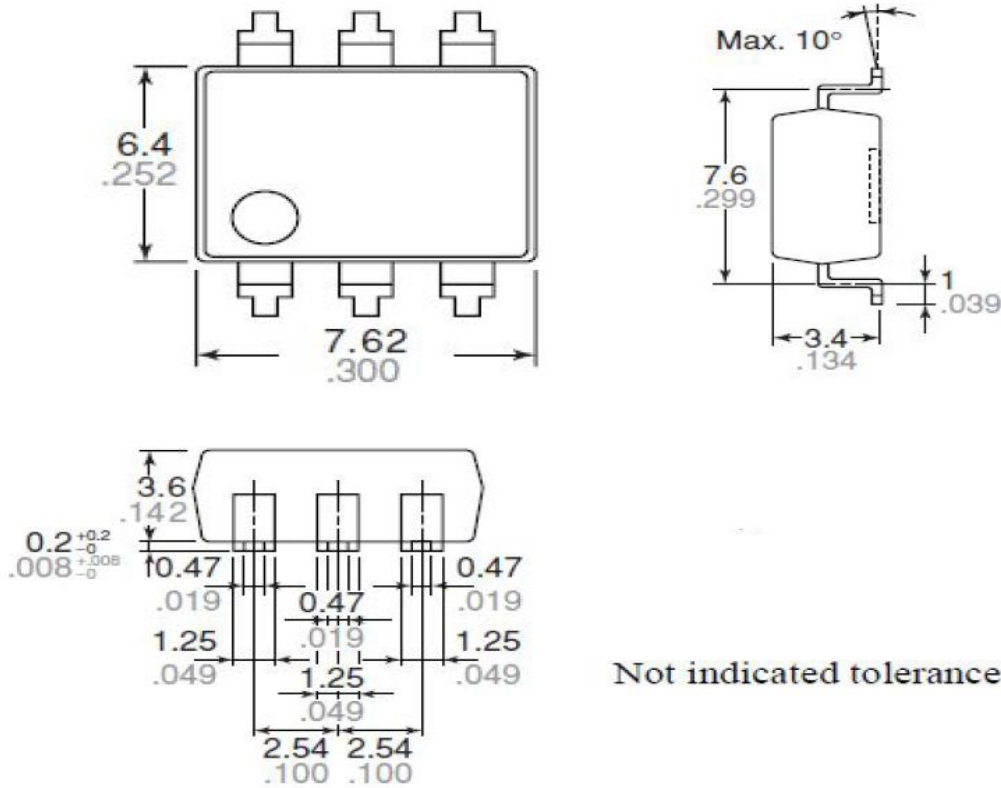
特性参数/Parameter		符号/Symbol	测试条件/Test condition	最小值/Min.	典型值/Typ.	最大值/Max.	单位/Unit
耦合特性 /Transfer characteristics	LED 触发电流/trigger current	$I_{FT}$	$V=\pm 5V$		3.5	5	mA
	导通电阻/Output on-state resistance	$R_{ON}$	$I_F=10mA, I_D=900mA$		0.1		$\Omega$
	导通时间/Turn on time	$t_{on}$	$I_F=10mA, I_D=400mA$		0.5	2	ms
	关断时间/Turn off time	$t_{off}$	$I_F=10mA, I_D=400mA$			1	
	介质电压/ I/O Dielectric Strength	$V_{ISO}$	$I_{off}\leq 0.3mA$	5000			$V_{rms}$
	电容/ I/O capacitance	$C$			200		pF
储存温度/Store temperature	工作温度/Operating temperature	T		-40		125	$^{\circ}C$
				-40		85	

### 外形尺寸/Outline dimension :

DIP6



SMD



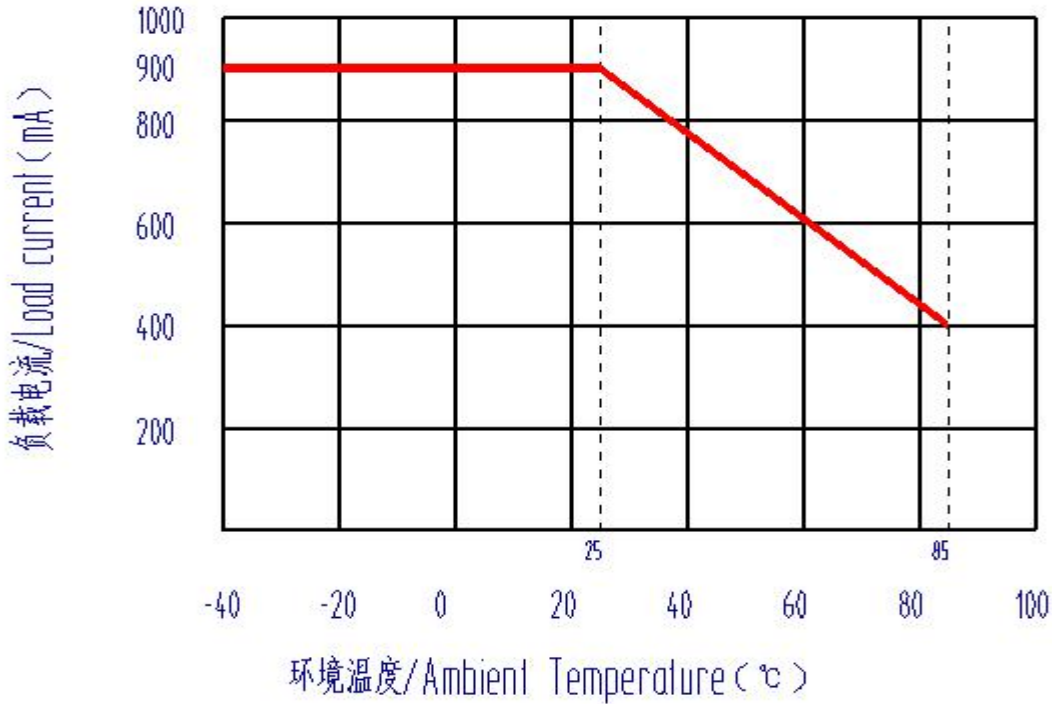
Not indicated tolerance:  $\pm 0.2$

订货标记示例/Order information :

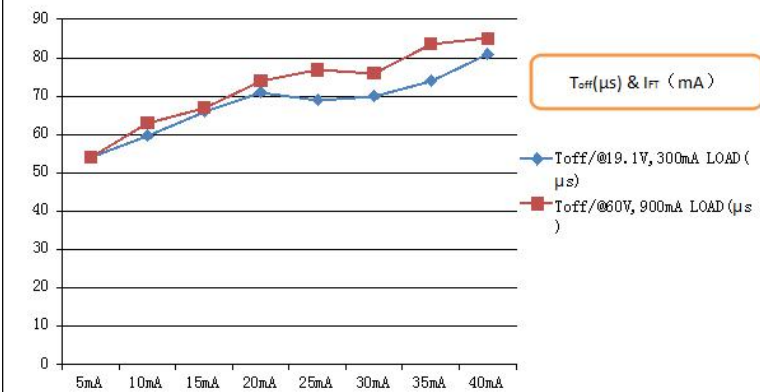
订货标记示例/Order information								
	Y	OM	B/	100	6	D	6	A
公司商标代号 Company symbol		MOS 输出型 SSR		常开型 normal open: 默认 nil 常闭型 normal close: B		负载电流 load current: 10—100mA; 16—160mA; 30—300mA; 40—400mA; 100—1000mA		击穿电压 BVDSS: 6—60V; 10—100V; 20—200V; 35—350V; 50—500V
D: DIP		S: SMD		4: PIN		6: 6PIN		8: 8PIN
A: AC		D: DC						

**特性曲线/Characteristic Data:**

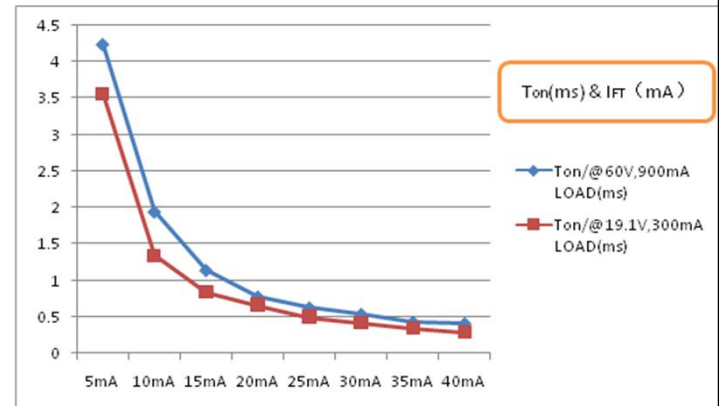
Load current vs. ambient temperature characteristics  
Allowable ambient temperature: -40° C to +85° C



2. Turn off time vs. input current characteristics:  
Load voltage: 19.1V and 60V. (DC);  
Continuous load current: 300mA and 900mA (DC)

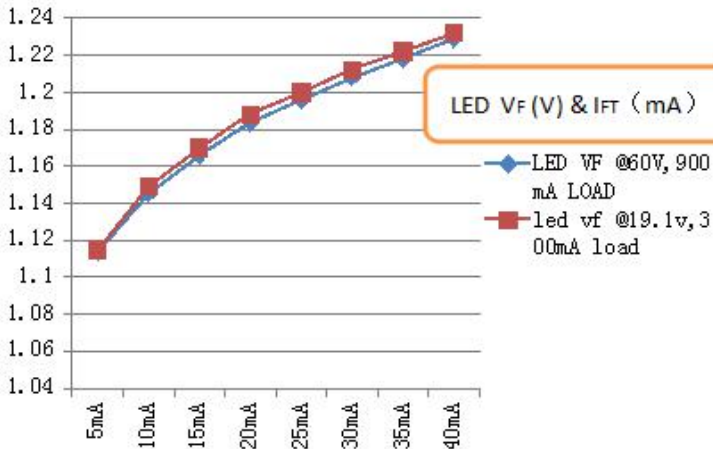


3. Turn on time vs. input current characteristics  
Load voltage: 19.1V and 60V. (DC);  
Continuous load current: 300mA and 900mA (DC)



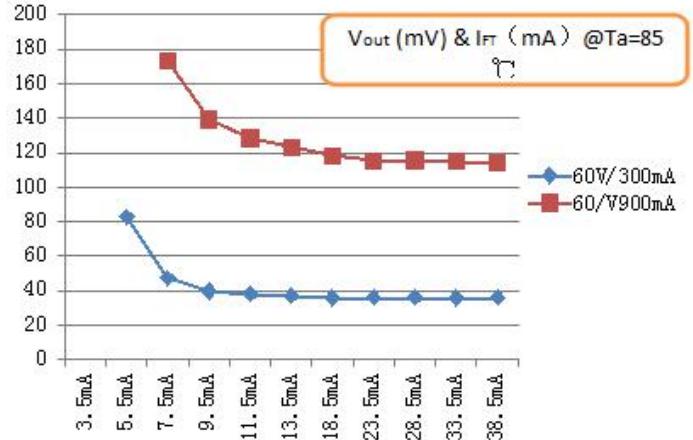
4. Input voltage vs. input current characteristics

Load voltage: 19.1V and 60V. (DC);  
Continuous load current: 300mA and 900mA (DC)



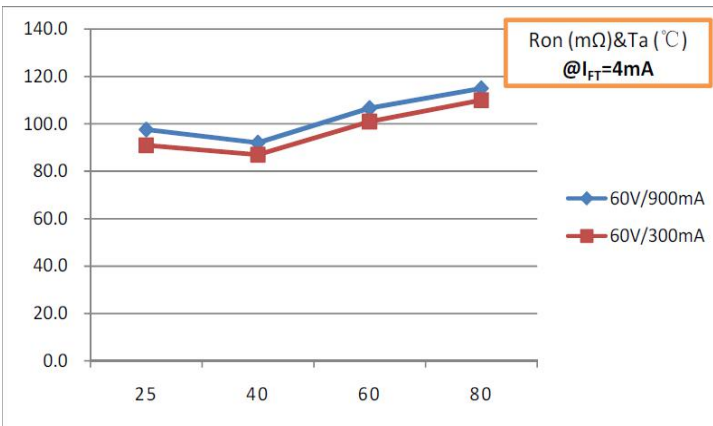
5. V<sub>out</sub> vs. input current characteristics

Load voltage: 19.1V and 60V. (DC);  
Continuous load current: 300mA and 900mA (DC)



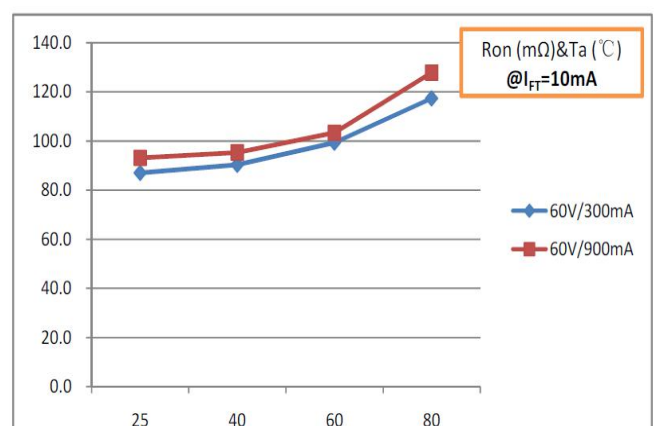
6. On resistance vs. ambient temperature characteristics

Measured pin between terminals 4 and 5, 5 and 6;  
LED current: 4 mA; Load voltage: 19.1V and 60V. (DC);  
Continuous load current: 300mA and 900mA (DC)



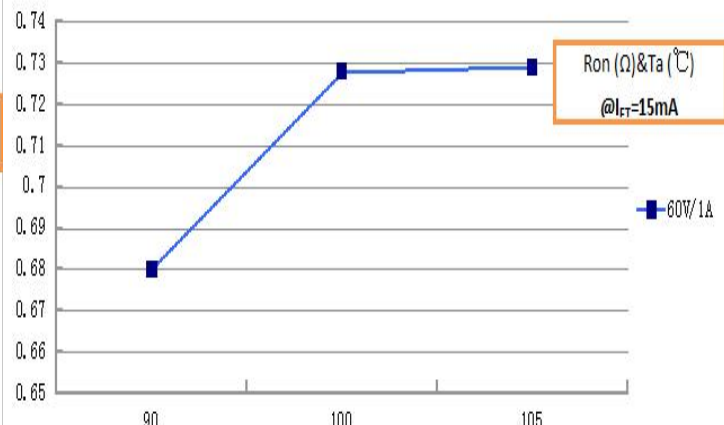
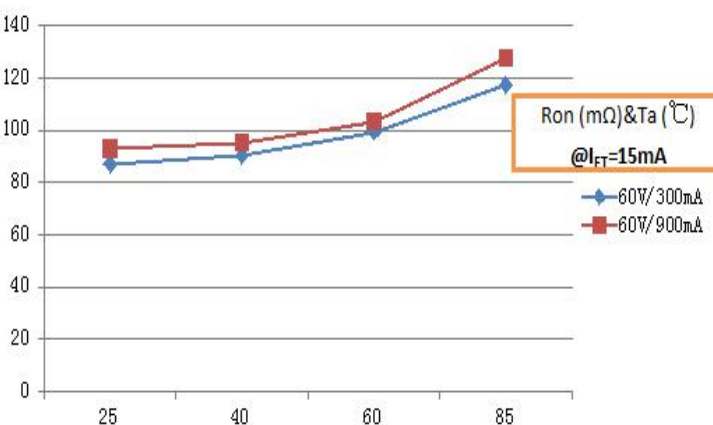
7. On resistance vs. ambient temperature characteristics

Measured pin between terminals 4 and 5, 5 and 6;  
LED current: 10 mA; Load voltage: 19.1V and 60V. (DC);  
Continuous load current: 300mA and 900mA (DC)

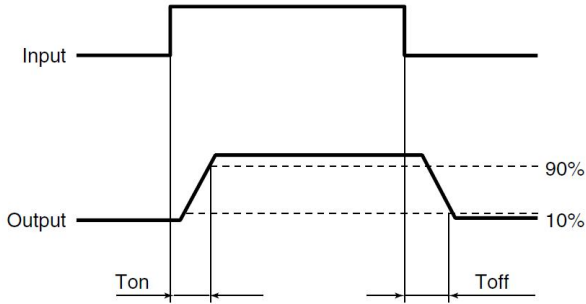


8. On resistance vs. ambient temperature characteristics

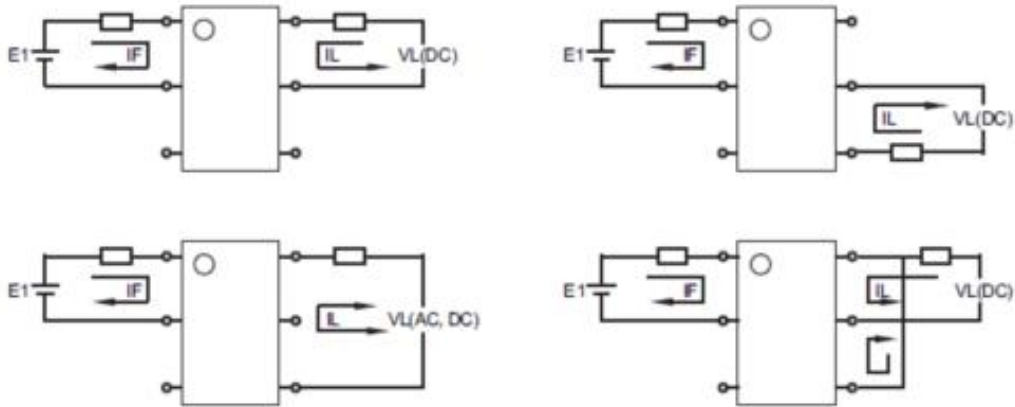
Measured pin between terminals 4 and 5, 5 and 6;  
LED current: 14 mA; Load voltage: 19.1V and 60V. (DC);  
Continuous load current: 300mA and 900mA (DC)



\* Turn on/Turn off time



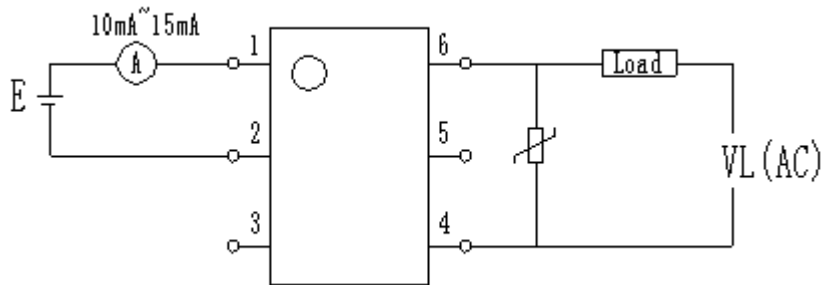
**接线图/Wiring diagram:**



**推荐的使用条件/Recommended driving condition :**

请确保输入电流大于10mA，推荐输入电流为15mA。请参考下图：

Please make sure the input current more 10mA, **Recommending iuput current 15mA.**



## 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 Annexes, fig.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.

## 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.
- b. 请在作业台上粘贴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地接地。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.