

# AUTOMOTIVE RELAY 汽车继电器

## TRV4

- 40A continuous rating 85°C  
85°C时 40A 持续负载
- Plug-in or PC board terminals  
插入式和 PCB 式引脚
- Optional mounting bracket  
可选择带安装靠背
- Conform to ROHS,ELV directive  
符合 ROHS,ELV 指令



### CONTACT DATA 触点参数

Contact Arrangement 触点形式	1Z/1H/1D/1U
Contact Material 触点材料	Silver Alloy 银合金
Load 负载	Resistive load 阻性负载 (cosΦ=1)
Contact Ratings 触点负载	NO: 40A 14VDC NC: 30A 14VDC
Max. Switching Voltage 最大切换电压	30VDC
Max. Switching Current 最大切换电流	40A
Max. Switching Power 最大切换功率	560W
Contact Resistance 接触电阻	100mΩ Max. at 6VDC 1A
Electrical Endurance 电耐久性	1×10 <sup>5</sup> OPS(at 20 OPS/min)
Mechanical Endurance 机械耐久性	1×10 <sup>7</sup> OPS(at 300 OPS/min)

### CHARACTERISTICS 性能参数

Insulation Resistance 绝缘电阻	100MΩ Min at 500VDC	
Dielectric Strength 介质耐压	Between Open Contacts 触点间	550VAC(50/60Hz for 1 minute)
	Between Contacts and Coil 触点与线圈间	750VAC(50/60Hz for 1 minute)
Operate Time 动作时间	10ms Max.	
Release Time 释放时间	10ms Max.	
Ambient Temperature 环境温度	-40°C to +85°C	
Shock Resistance 冲击	Functional 稳定性: 10G	
	Destructive 强度: 20G	
Vibration Resistance 振动	10-40Hz, 1.5mm DA 双振幅	
Max. Switching Frequency 最大切换频率	Mechanical: 18,000 OPS/h	
	Electrical: 1,200 OPS/h	
Humidity 湿度	20-85%	
Unit Weight 重量	Approx 40g 约40克	

## ■ COIL DATA 线圈参数

Rated Voltage 额定电压 (VDC)	6	12	24	1.6W
Coil Resistance 线圈电阻 ( $\Omega \pm 10\%$ )	23	90	360	
Rated Current 额定电流 (mA)	267	133	67	
Max. Operate Voltage 最大动作电压 (VDC)	3.9	7.8	15.6	
Min. Release Voltage 最小释放电压 (VDC)	0.6	1.2	2.4	
Coil Resistance 线圈电阻 ( $\Omega \pm 10\%$ )	19	76	300	1.9W
Rated Current 额定电流 (mA)	317	158	79	
Max. Operate Voltage 最大动作电压 (VDC)	3.9	7.8	15.6	
Min. Release Voltage 最小释放电压 (VDC)	0.6	1.2	2.4	
Max. Voltage 最大电压	7.8	15.6	31.2	

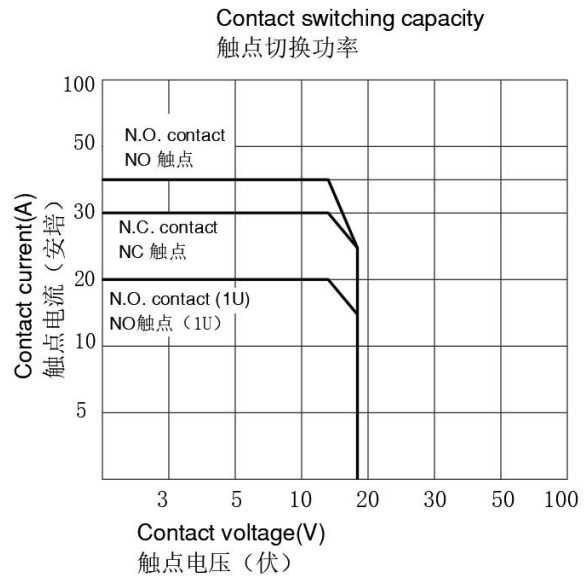
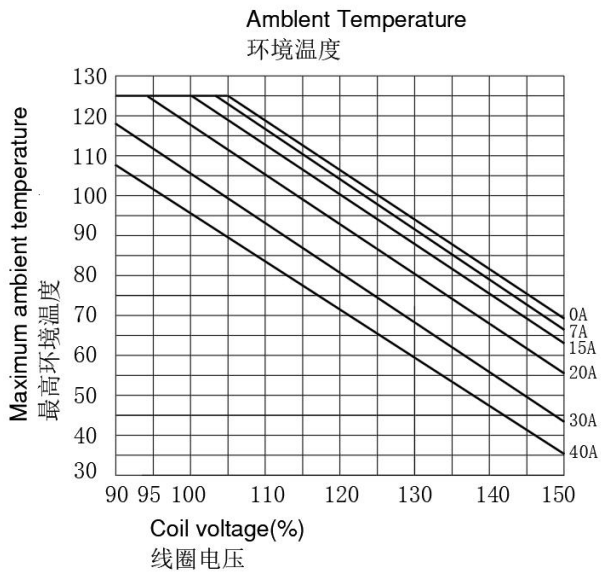
Remark: Max. Voltage refers to the maximum voltage which relay coil could endure in a period of time.

备注：最大电压是指继电器线圈在短时间内能够承受的最大电压值。

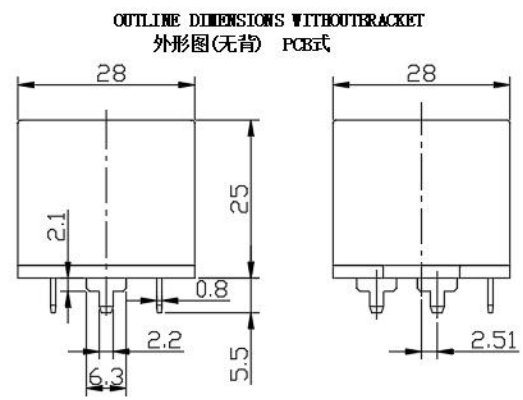
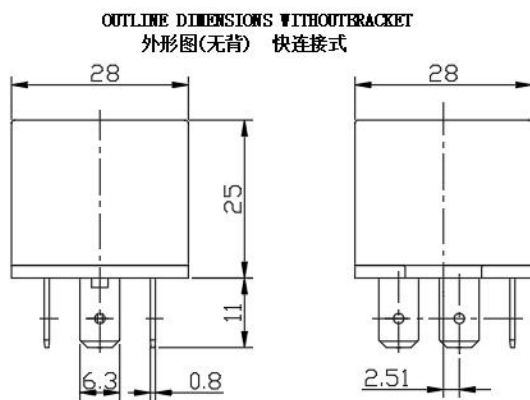
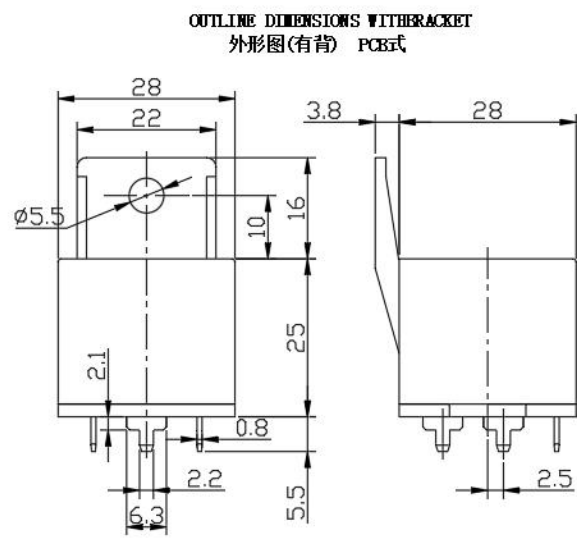
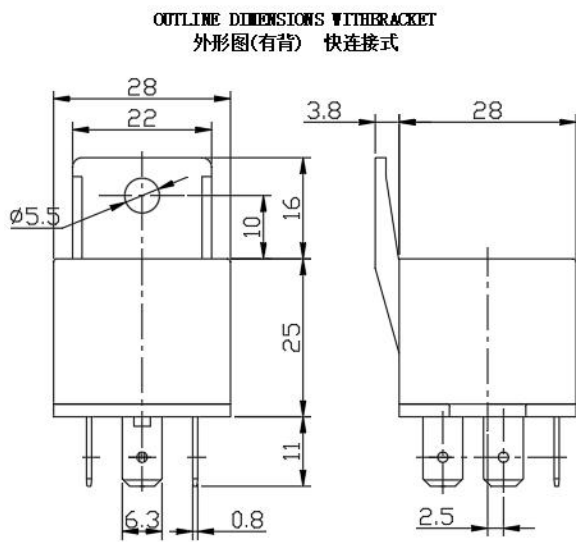
## ■ ORDERING INFORMATION 订货标记示例

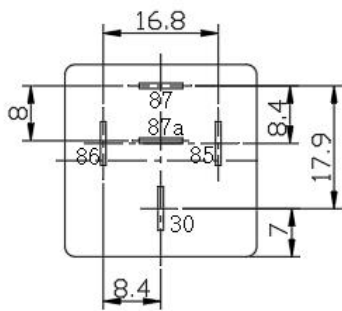
	<b>TRV4</b>	<b>L</b>	<b>-12V</b>	<b>(D1)</b>	<b>-Z</b>	<b>-F</b>	<b>-P</b>
<b>Type</b> 型号							
<b>Coil Power</b> 线圈功率	<b>D:1.9WW L:1.6W</b>						
<b>Coil Voltage</b> 线圈电压	<b>06, 12, 24VDC</b>						
<b>Standard</b> 标准	Nil: Standard (标准) R1: Coil parallel with 1/2W resistor 680 $\Omega$ for Coil voltage 12VDC Coil parallel with 1/2W resistor 2700 $\Omega$ for coil voltage 24VDC D1/D2: With diode Nil:标准型 R1:1/2W 电阻 680 $\Omega$ 线圈并联线圈电压 12VDC 1/2W 电阻 2700 $\Omega$ 线圈并联线圈电压 24VDC D1/D2:二极管 (详见安装图)						
<b>Contact Arrangement</b> 触点形式	<b>H: 1 Form A D: 1 Form B Z: 1 Form C U: 1 Form U</b> <b>H: 一组常开 D: 一组常闭 Z: 一组转换 D: U 型</b>						
<b>Shell Form</b> 外壳形式	<b>F: withbracket Nil: withoutbracket</b> <b>F:有背 Nil:无背</b>						
<b>Installation Form</b> 安装形式	<b>P:PCB Type Nil: B Type</b> <b>P:PCB 型 Nil:B 型</b>						

## CHARACTERISTIC CURVES 性能曲线图

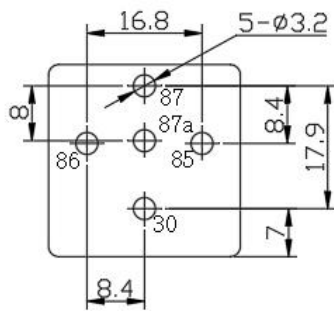


## OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT 外形图、接线图、安装孔尺寸

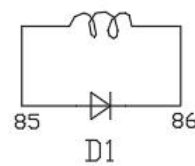




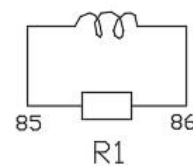
BOARD LAYOUT  
安装孔尺寸 (快连接式)



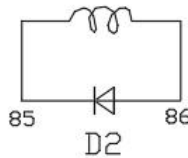
BOARD LAYOUT  
安装孔尺寸 (PCB式)



D1

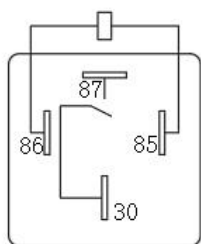


R1

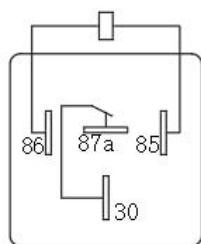


D2

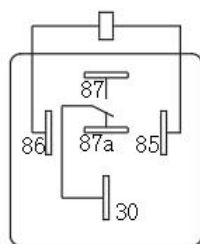
WIRING DIAGRAM  
接线图



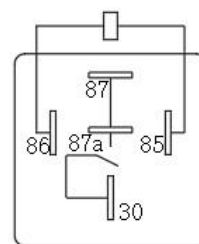
1A  
接线图



1B  
接线图



1C  
接线图



1U  
接线图

备注:

- 1) 产品外形图的标注尺寸为沾锡前尺寸 (沾锡后会变大), 安装孔尺寸为推荐的 PCB 板孔的设计尺寸, 具体 PCB 板孔设计尺寸可根据产品实物进行测绘、调整;
- 2) 产品部分外形尺寸中未注尺寸公差: 当外形尺寸  $\leq 1\text{mm}$  时, 公差为  $\pm 0.2\text{mm}$ ; 当外形尺寸在  $1\sim 5\text{mm}$  时, 公差为  $\pm 0.3\text{mm}$ ; 当外形尺寸  $> 5\text{mm}$  时, 公差为  $\pm 0.4\text{mm}$ 。
- 3) 安装孔尺寸中未注尺寸公差均为  $\pm 0.1\text{mm}$ 。

Remark:

- 1) In case of no tolerance shown in outline dimension: outline dimension  $\leq 1\text{mm}$ , tolerance should be  $\pm 0.2\text{mm}$ ; outline dimension  $> 1\text{mm}$  and  $\leq 5\text{mm}$ , tolerance should be  $\pm 0.3\text{mm}$ ; outline dimension  $> 5\text{mm}$ , tolerance should be  $\pm 0.4\text{mm}$ .
- 2) The additional tin top is max. 1mm.
- 3) The tolerance without indicating for PCB layout is always  $\pm 0.1\text{mm}$ .

声明:

本产品规格书仅供客户使用时参考, 如有更改, 恕不另行通知。

Disclaimer:

The specification is for reference only. Specification subject to change without notice.