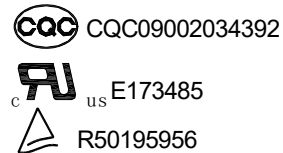


# 功率继电器

TRCD

- Sub-miniature dimensions:  $23 \times 16.1 \times 10.2$  (L×W×H)  
小的外形尺寸
- High-sensitivity models available with low power consumption (200 mW)  
高灵敏度，低功耗 (200mW)
- RoHS Compliant 符合 RoHS 标准



## CONTACT DATA 触点参数

|                               |                                                                                                         |
|-------------------------------|---------------------------------------------------------------------------------------------------------|
| Contact Arrangement 触点形式      | 1H                                                                                                      |
| Contact Material 触点材料         | Silver Alloy 银合金                                                                                        |
| Load 负载                       | Resistive load 阻性负载 ( $\cos \Phi=1$ )                                                                   |
| Contact Ratings 触点负载          | 16A 250VAC (TUV,CQC)<br>10A 250VAC/24VDC<br>1/2HP 125VAC<br>TV-5A @125VAC(LAMP)<br>10A 125VAC(Tungsten) |
| Min. Contact Load 最小负载        | 100mA 5VDC                                                                                              |
| Max. Switching Voltage 最大切换电压 | 250VAC/125VAC                                                                                           |
| Max. Switching Current 最大切换电流 | 16A                                                                                                     |
| Max. Switching Power 最大切换功率   | 4000VA/480W                                                                                             |
| Contact Resistance 接触电阻       | $\leq 100\text{m}\Omega$ (6VDC 1A)                                                                      |
| Electrical Endurance 电耐久性     | $1 \times 10^5$ OPS(at 6 OPS/min) $1 \times 10^5$ 次(6次/分钟)                                              |
| Mechanical Endurance 机械耐久性    | $1 \times 10^7$ OPS(at 300 OPS/min) $1 \times 10^7$ 次(300次/分钟)                                          |

## CHARACTERISTICS 性能参数

|                            |                                                                       |
|----------------------------|-----------------------------------------------------------------------|
| Insulation Resistance 绝缘电阻 | 100M $\Omega$ Min. at 500VDC                                          |
| Dielectric Strength 介质耐压   | Between Open Contacts 触点间<br>700VAC (50/60Hz 1 min)                   |
|                            | Between Contacts and Coil 触点与线圈间<br>2500VAC (50/60Hz 1 min)           |
| Operate Time 动作时间          | $\leq 15\text{ms}$                                                    |
| Release Time 释放时间          | $\leq 8\text{ms}$                                                     |
| Ambient Temperature 环境温度   | $-40^\circ\text{C} \sim +85^\circ\text{C}$ (F: $+105^\circ\text{C}$ ) |
| Shock Resistance 冲击        | Functional 稳定性: 10G                                                   |
|                            | Destructive 强度: 100G                                                  |
| Vibration Resistance 振动    | 10~55Hz, 1.5mm DA 双振幅                                                 |
| Humidity 湿度                | 20~85%                                                                |
| Unit Weight 重量             | Approx. 8g 约8克                                                        |

■ COIL DATA 线圈参数 (at 23°C)

|                                            |      |      |      |      |      |      |       |      |       |
|--------------------------------------------|------|------|------|------|------|------|-------|------|-------|
| Rated Voltage 额定电压 (VDC)                   | 3    | 5    | 6    | 9    | 12   | 18   | 24    | 48   | 0.45W |
| Coil Resistance 线圈电阻 ( $\Omega \pm 10\%$ ) | 20   | 56   | 80   | 180  | 320  | 1280 | 5120  | 20   |       |
| Rated Current 额定电流 (mA)                    | 150  | 90   | 75   | 50   | 37.5 | 18.7 | 9.4   | 150  |       |
| Max. Operate Voltage 最大动作电压 (VDC)          | 2.25 | 3.75 | 4.5  | 6.75 | 9    | 18   | 36    | 2.25 |       |
| Min. Release Voltage 最小释放电压 (VDC)          | 0.15 | 0.25 | 0.3  | 0.45 | 0.6  | 1.2  | 2.4   | 0.15 |       |
| Max. Voltage 最大电压                          | 3.9  | 6.5  | 7.8  | 11.7 | 15.6 | 23.4 | 31.2  | 62.4 |       |
| Rated Voltage 额定电压 (VDC)                   | 3    | 5    | 6    | 9    | 12   | 18   | 24    | 48   | 0.36W |
| Coil Resistance 线圈电阻 ( $\Omega \pm 10\%$ ) | 25   | 69   | 100  | 225  | 400  | 1600 | 6400  | 25   |       |
| Rated Current 额定电流 (mA)                    | 120  | 72   | 60   | 40   | 30   | 15   | 7.5   | 120  |       |
| Max. Operate Voltage 最大动作电压 (VDC)          | 2.25 | 3.75 | 4.5  | 6.75 | 9    | 18   | 36    | 2.25 |       |
| Min. Release Voltage 最小释放电压 (VDC)          | 0.15 | 0.25 | 0.3  | 0.45 | 0.6  | 1.2  | 2.4   | 0.15 |       |
| Max. Voltage 最大电压                          | 3.9  | 6.5  | 7.8  | 11.7 | 15.6 | 23.4 | 31.2  | 62.4 |       |
| Rated Voltage 额定电压 (VDC)                   | 3    | 5    | 6    | 9    | 12   | 18   | 24    | 48   | 0.2W  |
| Coil Resistance 线圈电阻 ( $\Omega \pm 10\%$ ) | 45   | 125  | 180  | 405  | 720  | 2880 | 11520 | 45   |       |
| Rated Current 额定电流 (mA)                    | 66.7 | 40   | 33.3 | 22.2 | 16.7 | 8.3  | 4.2   | 66.7 |       |
| Max. Operate Voltage 最大动作电压 (VDC)          | 2.25 | 3.75 | 4.5  | 6.75 | 9    | 18   | 36    | 2.25 |       |
| Min. Release Voltage 最小释放电压 (VDC)          | 0.15 | 0.25 | 0.3  | 0.45 | 0.6  | 1.2  | 2.4   | 0.15 |       |
| Max. Voltage 最大电压                          | 3.9  | 6.5  | 7.8  | 11.7 | 15.6 | 23.4 | 31.2  | 62.4 |       |

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。

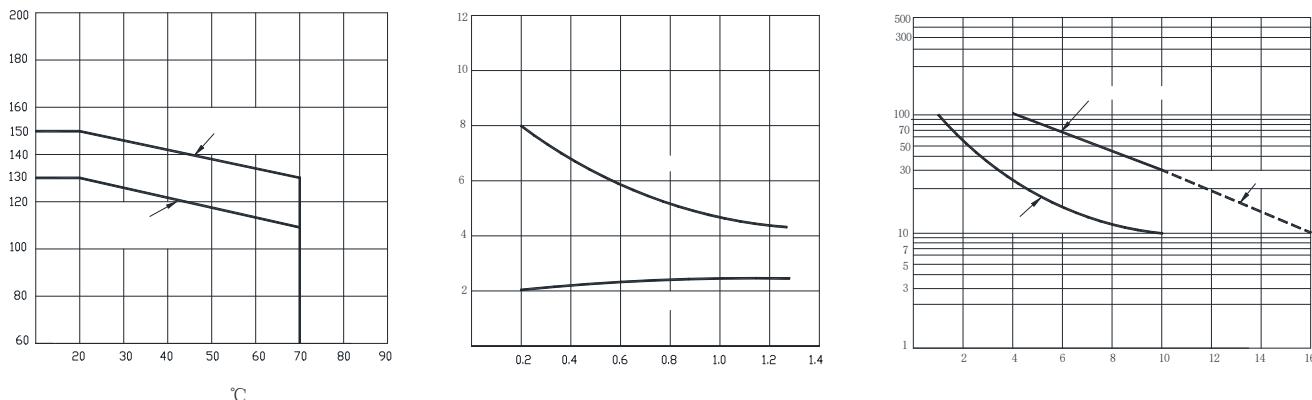
■ SAFETY APPROVED RATINGS 安全认证

| Type(型号) | Coil Voltage (线圈电压) | Safety Approval (安全认证) | Contact Ratings (触点负载)                                                                           |
|----------|---------------------|------------------------|--------------------------------------------------------------------------------------------------|
| TRCD     | 3 ~ 48VDC           | TÜV                    | 16A 250VAC<br>10A 250VAC 10A 24VDC                                                               |
|          |                     | UL/cUL                 | 10A 250VAC 1/2HP 125VAC<br>TV-5A @125VAC (LAMP)<br>10A 125VAC(Tungsten)<br>15A 125VAC 1HP 277VAC |
|          |                     | CQC                    | 10A 250VAC/ 16A250VAC                                                                            |

■ ORDERING INFORMATION 订货标记示例

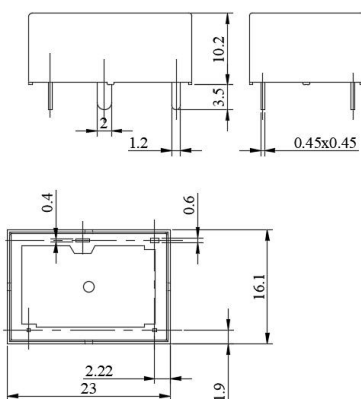
|                      |                                                |                                                                  |                              |        |    |    |     |
|----------------------|------------------------------------------------|------------------------------------------------------------------|------------------------------|--------|----|----|-----|
| Type<br>型号           |                                                | TRCD                                                             | L                            | -12VDC | -S | -H | /XX |
| Power<br>线圈功耗        |                                                | L: 0.2W   D: 0.36W   N: 0.45W                                    |                              |        |    |    |     |
| Coil Voltage<br>线圈电压 |                                                | 03, 05, 06, 09, 12, 18, 24, 48VDC                                |                              |        |    |    |     |
| Construction<br>封装方式 |                                                | S: Plastic sealed   S: 塑封型                                       |                              |        |    |    |     |
| Contact<br>触点形式      |                                                | H: 1 Form A   H: 一组常开                                            |                              |        |    |    |     |
| Special Code<br>特性号  | XX: Customer Special Requirement<br>XX: 客户特殊要求 | IT: Compliant with IEC 60335-1 (GWT)<br>IT: 满足 IEC 60335-1 (GWT) | Nil: Standard Type<br>无: 标准型 |        |    |    |     |

## ■ CHARACTERISTIC CURVES 性能曲线图

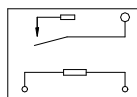


## ■ OUTLINE DIMENSIONS, WIRING DIAGRAM AND PC BOARD LAYOUT 外形图、接线图、安装孔尺寸

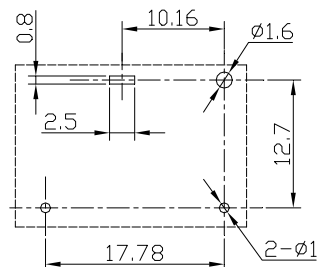
### Outline dimensions



### Wiring Diagram



### PC Board Layouts(Bottom View)



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.