

继电器产品承认书

SPECIFICATION FOR APPROVAL

客户名称 Customer name: _____
产品名称 Product Description: 继电器 Relay _____
供方型号 Supplier Part No.: SED(U)-05DM _____
客户料号 Customer Material Code: _____
客户型号 Customer Part No.: _____
版 本 REV: _____
日 期 Date: 2019-7-11 _____

供应 厂商	制定	审核	批准
	阳科	苗建峰	饶云飞
客户 确认	开发/工程 审核	品质部 审核	批准

一、基本特性 Basic characteristics

1、线圈参数 Coil specification

- | | |
|--------------------------------|--|
| (1) 额定电压 Nominal voltage | DC 5V |
| (2) 线圈阻抗 Coil resistance | 70 Ω \pm 10% (at 23 \pm 5 $^{\circ}$ C) |
| (3) 额定电流 Rated current | DC 30mA \pm 10% (at 23 \pm 5 $^{\circ}$ C) |
| (4) 动作电压 Operate voltage | DC4.0V Max ((at 23 \pm 5 $^{\circ}$ C) |
| (5) 释放电压 Release voltage | DC0.5V Min ((at 23 \pm 5 $^{\circ}$ C) |
| (6) 最大电压 Maximum voltage | DC 6.5V(130% of nominal voltage) |
| (7) 线圈温升 Coil temperature rise | 40K Max (Coil:5V) |

2、触点参数 Contact Specification

- | | |
|--|---|
| (1) 触点型式 Contact configuration | SPST-NO (1 Form A)--单刀单掷 (一组常开) |
| (2) 触点额定负载 Contact rating | 12A 250VAC 12A28VDC (Resistive load)
15A 125VAC(Resistive load); |
| (3) 接触电阻 Contact resistance | Initial (初始值) 100 m Ω Max (At DC6V 1A) |
| (4) 动作时间 Operate time | 10ms Max |
| (5) 释放时间 Release time | 5ms Max |
| (6) 最大动作频率 Maximum operating frequency | Mechanically 18000 cycle/h (机械)
Electrically 600 cycle/h (电气) |
| (7) 触点温升 Contact temperature rise | 50K Max (Contact:12A) |

3、通用参数 General Specification

- | | |
|--------------------------------|---|
| (1) 绝缘阻抗 Insulation resistance | 1000M Ω Min (at DC500V) |
| (2) 电气强度 Dielectric strength | 触点间 between open contacts 750VAC,50/60 HZ for 1Minute
线圈与触点间 between contacts and coil 1750VAC,50/60 HZ for 1 Minute |
| (3) 环境温度 Ambient temperature | -40 $^{\circ}$ C \sim +85 $^{\circ}$ C
(Not freezing and condensing at low temperature) |
| (4) 相对湿度 Relative Humidity | 45% to 85% RH |
| (5) 电气寿命 Electrical life | 100,000 Operations Min (at 10A 250VAC) |
| (6) 机械寿命 Mechanical life | 10,000,000 operations Min |

4、体系、安规认证和环保 Quality System、 Safety Certification and RoHS(REACH)

- | | |
|------------------------------|---|
| (1) UL certified | File NO. E481527;
10A 250VAC; 15A 125VAC; |
| (2) TUV certified | File No. R50328904
7A250VAC: 10A250VAC
15A125VAC 10A28VDC |
| (3) CQC certified | File No. CQC12002067792
10A 28DC; 7A 250VAC 10A250VAC
12A125VAC 10A250VAC 15A125VAC |
| (4) ISO9001:2015 certified | File No. 117 19 QU 0068-02 POM |
| (5) RoHS and REACH Compliant | CAN17-059513-01 |

二、环境参数 Environmental Characteristics

1、抗振动性 Vibration resistance

1.1 误动作 Error operation

在 X、Y、Z 轴三个方向施加双振幅为 1.5mm，频率为 10-55HZ 的振动，时间 5 分钟，误动作时间不超过 1ms。

At constant vibration of double amplitude 1.5mm, 10 ~ 55 HZ , in each direction of X,Y,Z for 5 minutes. No error operation more than 1 ms.

1.2 耐久性 Endurance

在三个方向施加振动 2 小时，无结构损坏。

No construction trouble when vibrate it from 3 directions for 2 hours.(Amplitude 1.5mm, 10~55 HZ)

2、抗冲击性 Shock resistance

2.1 误动作 Error operation

在三个方向施加三次加速度为 100m/s² 持续时间 11ms，误动作不超过 1ms。

At peak acceleration 100m/s² duration 11ms, 3 shocks is given in each direction of X, Y, Z. No error operation more than 1 ms.

2.2 耐久性 Endurance

三个方向三次加速度为 1000m/s² 持续时间 6ms，无结构损坏。

No construction trouble when shock it from 3 directions 3 times at peak acceleration 1000m/s² duration 6ms.

3、耐寒性 Cold resistance

3.1 耐寒性 Cold resistance

放置于-40℃±2℃环境温度下 240 小时，然后在标准条件下放置 2 小时，结构和性能无异常。

No any trouble on construction or characteristic when leave relay in -40℃±2℃ for 240h. After that, leave it in standard condition for 2 hours.

4、耐热性 Heat resistance

4.1 耐热性 Heat resistance

放置于+85℃±2℃环境温度下 240 小时，然后在标准条件下放置 2 小时，结构和性能无异常。

No any trouble on construction or characteristic when leave relay in +85℃±2℃ for 240h. After that, leave it in standard condition for 2 hours.

5、耐湿性 Moisture resistance

5.1 放置于 40℃，湿度 90%环境下 240 小时，然后在标准条件下放置 2 小时，绝缘电阻最小 10MΩ，结构和性能无异常。

After keeping relay for 240h in 40℃, 90%, then leave it in standard condition for 2 hours. Insulation resistance 10MΩ Min. No any trouble on construction or characteristic.

三、端子性能 Terminal characteristics

1、端子强度 Terminal strength

在端子上施加 5N 压力 10 秒钟，无变形现象。

5N pushed into any terminals for 10 s. There shall be no abnormalities.

(The curving of the terminals shall be acceptable)

2、端子可焊性 Terminal solderability

端子浸入 260±5℃焊锡槽中，时间 5±0.5 s，90%部位应该上锡。

In case of lead free solder 260±5℃, 5±0.5 s, 90% of the dipped portion shall be soldered.

3、耐焊接热 Soldering thermal

端子浸入 260±5℃焊锡槽中，时间 10±1 s，结构和性能无异常。

No any trouble on construction or characteristic. When dipped into solder bath 260±5℃, 10±1s.

四、标准测试条件 Standard test condition

1、环境温度 Ambient temperature

23±5℃

2、相对湿度 Relative humidity

25%~75%

3、气压 Air pressure

86kPa~106kPa

4、测试位置 Direction of Test

端子朝下位置 Terminals down position

五、储存条件 Storage condition

1、环境温度 Ambient temperature

-40℃~+85℃

2、相对湿度 Relative humidity

35%~85%

3、环境 Environment

3.1、不要储存在诸如硫化氢和盐雾气体等有腐蚀性的环境中。

Store in locations where the product or container is not expose to corrosive gas such as hydrogen sulfide or salty air.

3.2、储存在没有可视尘埃的环境中。

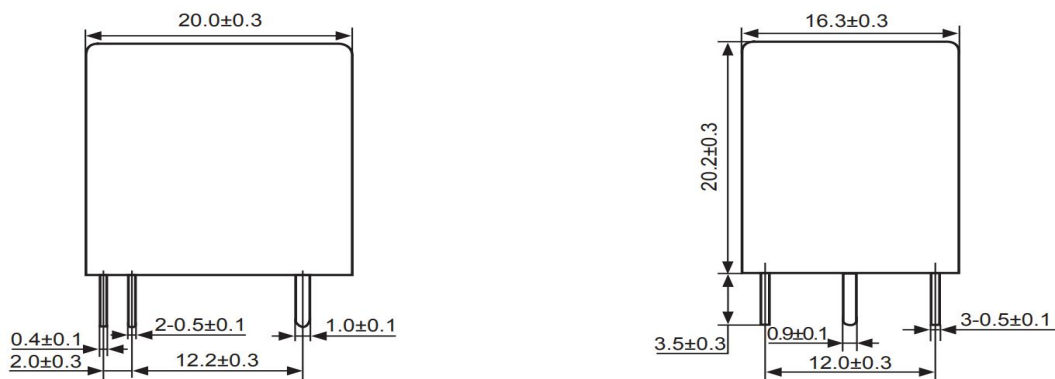
Store in locations where no visible dust exists.

3.3、储存在没有直射阳光的环境中。

Store in locations not subject to direct sunlight.

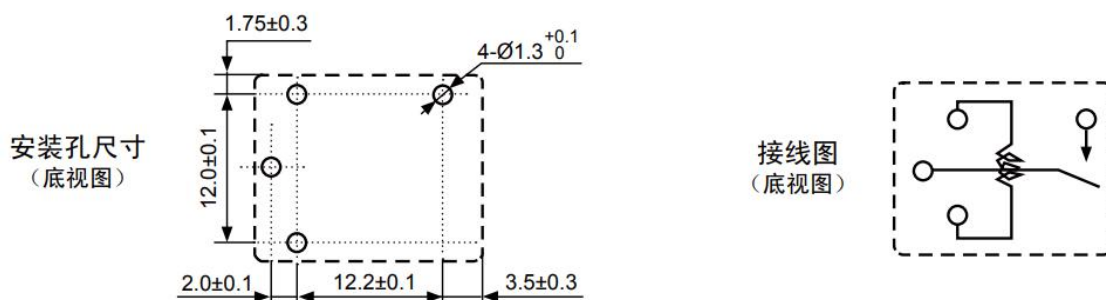
六、外型图、线路板孔位图和线路图 Outline、PCB Layout and Wiring diagram(unit:mm)

1.外形图

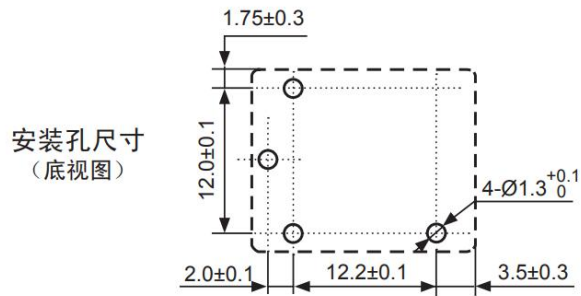


2.安装脚位图

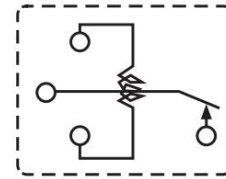
A 型 (常开型)



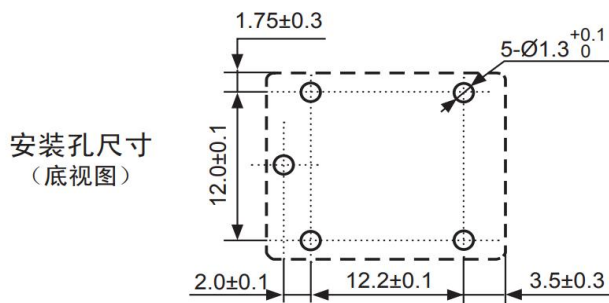
B 型（常闭型）



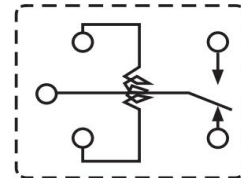
接线图
(底视图)



C 型（转换型）



接线图
(底视图)



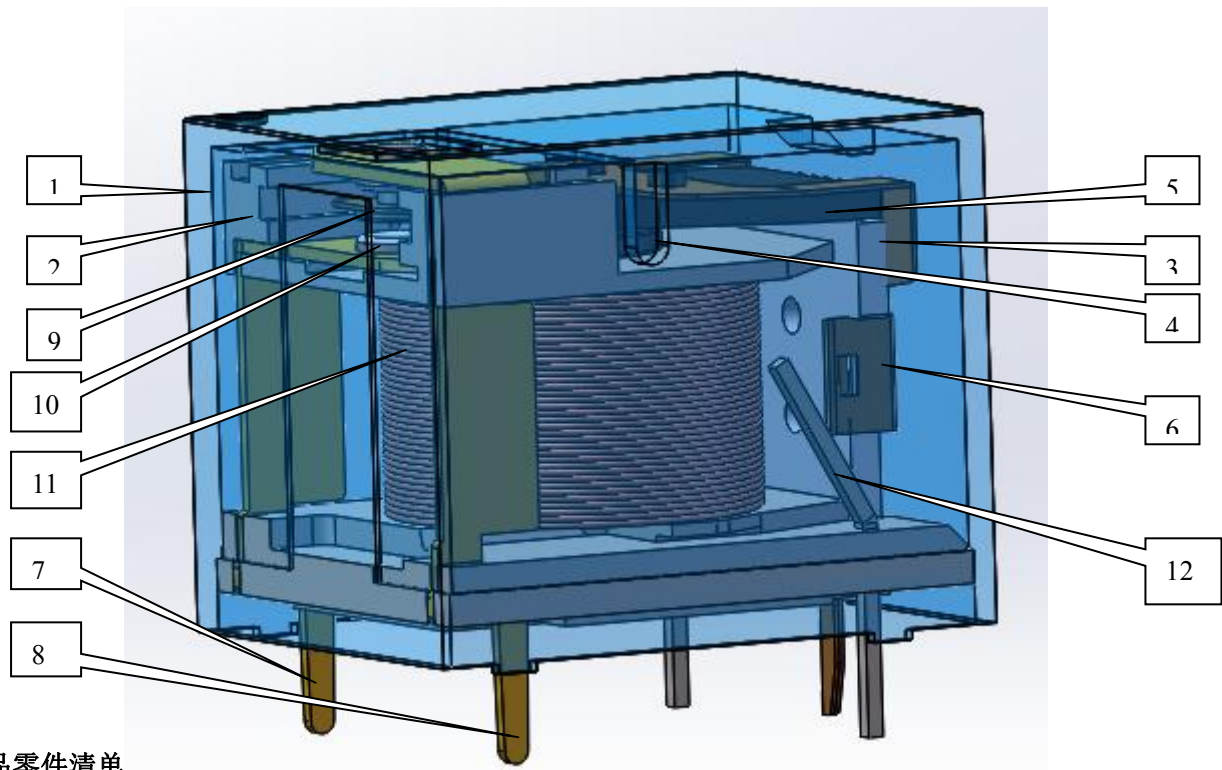
七、命名规则 Encoding Information

SED (U) — X X X X

1 2 3 4

1. 产品型号 Product type: SED (U)
2. 线圈额定电压 Coil Nominal Voltage
DC:3V,5V,6V,9V,12V,24V,48V
3. 线圈额定功率 Coil Nominal Power
D—Standard coil power 标准功率 0.36W
4. 触点型式 Contact arrangement
M: 常开触点 B:常闭触点 无: 转换

注：生产批号尾缀带 P 代表产品耐灼热丝实验。



八.产品零件清单

序号	名称	型号规格	用量
1	外壳	塑料 PBT/PA66	1
2	骨架	塑料 PBT	1
3	轭铁	电工纯铁	1
4	铁芯	电工纯铁	1
5	衔铁	电工纯铁	1
6	簧片	磷青铜	1
7	下静簧	高精铜	1
8	上静簧/假静簧	高精铜/SPCC	1
9	动触点	银合金	1
10	静触点	银合金	1
11	聚氨酯漆包线	3UEWF	3.5g
12	方针线	铜包钢	0.5x0.5x13mm