STKC 小型汽车继电器 Miniature Automotive Relay

特性 Features

- 35A负载能力 35A Load capacity
- 超小型 subminiature
- 常开和转换型可选Normally open and conversion type available
- 单，双继电器可供选择 Single and dual relays are available
- 符合ROHS ROHS compliant
- 外形尺寸 Outline Dimensions : (12.9x12x9.9)mm/(24x13.5x10)mm

典型应用 Application

- 中央门锁、雨刮器控制、仪表控制、自动门窗、防盗系统、座椅加热控制、照明 / 闪光灯 / 指示灯控制。 Central door lock, wiper control, instrument control, automatic door and window, anti-theft system, seat heating control, lighting/flash/indicator control.

触点参数 Contact Data

触点形式 Contact Arrangement	1A,1C 2A,2C
触点额定 Contact Rating	30A 16VDC
最大切换电压 Max. Switching Voltage	16VDC
最大切换电流 Max. Switching Current	30A
触点材质 Contact Material	银合金 Ag alloy
接触电阻 Contact Resistance	Max.100mΩ (1A 5VDC)
动作/释放时间 Operate Time/ Release Time	≤10ms/≤10ms
电耐久性 Electrical Endurance	$1*10^5$ops. .(最大转换频率：600次/小时 Maximum conversion frequency: 600 times/hour)
机械耐久性 Mechanical Endurance	$1*10^7$ops. .(最大转换频率：18000次/小时 Maximum conversion frequency: 18000 times/hour)
最大切换功率 Max. Switching Power	480W

备注： (1) 电耐久性是采用其中的常开触点或者常闭触点进行测试的数据。
Note: (1) Electrical durability is tested using the normally open contact or normally closed contact.

性能参数 Characteristics

绝缘电阻 Insulation Resistance		100MΩ Min （at 500VDC)
介质耐压 Dielectric Strength	断开触点间 Between Open Contacts	500Vrms 1min
	线圈与触点间 Between Coil and Contact	500Vrms 1min
温度范围 Temperature Range		-40~+105℃
湿度 Ambient Operating Humidity		35% ~ 85%RH
振动 Vibration Resistance		10Hz-55Hz, at double amplitude 1.5mm 频率 10Hz-55Hz，双振幅 1.5mm
冲击 Shock	稳定性 Functional	30G
	强度 Destructive	100G
重量 Weight		Approx.4g(S)8g(D)

线圈参数 Coil Data （标准型 Standard)

线圈电压范围 Coil Voltage Range	12 VDC
容许最大电压 Max. Continuous	额定电压的170% 170% of Rated Voltage
额定线圈功率 Coil Rating Power	0.8W

线圈规格 Coil Voltage Specifications (标准型 Standard)

额定电压 Nominal Coil	动作电压 Must Operate	释放电压 Release Coil	线圈电阻 Coil Resistance
VDC	VDC	VDC	Ω(±10%)
12	6.9	1.5	180

线圈参数 Coil Data（灵敏型 Sensitivity)	
线圈电压范围 Coil Voltage Range	5~24 VDC
容许最大电压 Max. Continuous	额定电压的170% 170% of Rated Voltage
额定线圈功率 Coil Rating Power	0.55W

注:

a) 所有数值均为在环境温度+23℃下未预通电的线圈 All the performance data are for coils that are not pre energized at 23℃ ambient temperature.

线圈规格 Coil Voltage Specifications (灵敏型 Sensitivity)

额定电压 Nominal Coil	动作电压 Must Operate	释放电压 Release Coil	线圈电阻 Coil Resistance
VDC	VDC	VDC	Ω(±10%)
5	2.9	0.5	45
6	3.5	0.6	65.5
9	5.2	0.9	147.3
12	6.9	1.5	262
24	13.8	3.0	1047

注:

a) 以上值为初始值 All the performance data are initial values.

b) 线圈电阻是在线圈温度23℃，公差为±10% Coil resistance is tested at 23℃ ambient temperature, ±10% tolerance.

触点负载电 Contact load	负载类型Load type		触点负载电流 Contact load current (A) 1C 常开NO	触点负载电流 Contact load current (A) 1C 常闭NC	通断比 on-off ratio 接通ON S	通断比 on-off ratio 断开OF S	电耐久性Electrical durability (次ops)	触点接线图Contact wiring diagram
13.5VDC	阻性resistivity	接通ON	20	—	1	5	$3x10^5$	见图1 See Figure 1
		断开OFF	20	—				
	雨刷电机L=1.0mH Wiper motor L=1.0mH	接通ON	25(1)	—	0.2	2	$3x10^5$	见图2 See Figure 2
		断开OFF	5	—	1.8			
	电机锁定L=0.77mH Motor lock L=0.77mH	接通ON	20	—	0.2	2	$1x10^5$	见图3 See Figure 3
		断开OFF	20	—	0.2			
	阻性resistivity	接通ON	20	—	1	5	$3x10^5$	见图4 See Figure 4
		断开OFF	20					
	闪光灯Flash lamp(3)	接通ON	3x21W	—	0.365	0.365	$2x10^6$	见图5 See Figure 5
		断开OFF						
	灯Lamp	接通ON	40(2)	—	2	2	$1x10^5$	见图6 See Figure 6
		断开OFF	10					

Figure 1

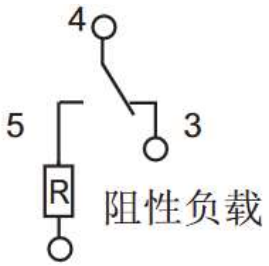


Figure 2

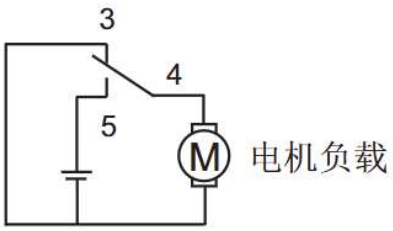


Figure 3

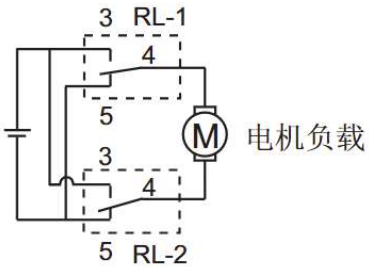


Figure 4

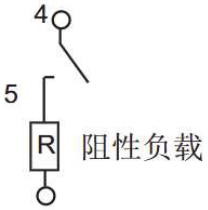


Figure 5

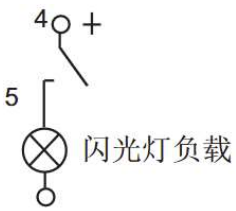
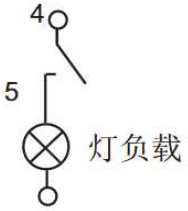


Figure 6



注 Note:

（1）接通电流指电机启动峰值电流；On-current refers to the peak starting current of the motor;

(2) 初始灯丝尖峰冲击电流 Initial filament peak impulse current ；

(3)当用于闪光灯负载时，须按图5极性要求接线，并须采用特殊触点；When used for flash load, it must be connected according to the polarity requirements of Figure 5, and special contacts must be used;

(4) 触点接线图如下所示（常开、 常闭负载测试采用不同样品分开测试）The contact wiring diagram is shown below (normally open and normally closed load tests are conducted separately with different samples).

■ 型号命名标准 Model Number Legend

	STKC	-12	L	M	S	,XXX

基本型号 Basic Type:

STKC

线圈电压 Coil Voltage:

5, 6, 9, 12, 24VDC

线圈功耗 Coil Power:

Blank: 0.8W (仅适用于12VDC规格 Only For 12VDC Type); L: 0.55W

触点结构 Contact Arrangement:

Blank: 1组转换 1 Form C; M: 1组常开 1 Form A

2: 2组转换 2 Form C; 2M: 2组常开 2 Form A

防护构造 Protective Construction:

Blank: 耐助焊剂型 Flux Tight; S: 塑料密封型 Sealed

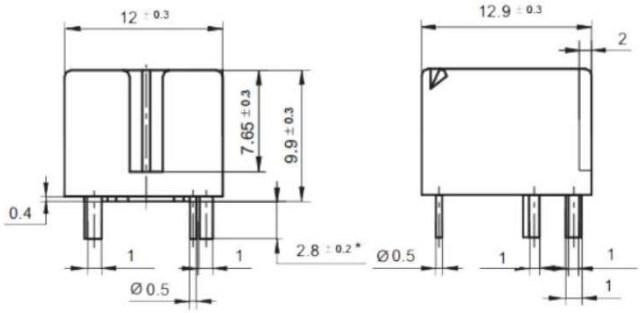
特殊特性 Special Characteristic:

Blank:标准型Standard; XXX: 客户特殊特性号 Customer Special Feature Number

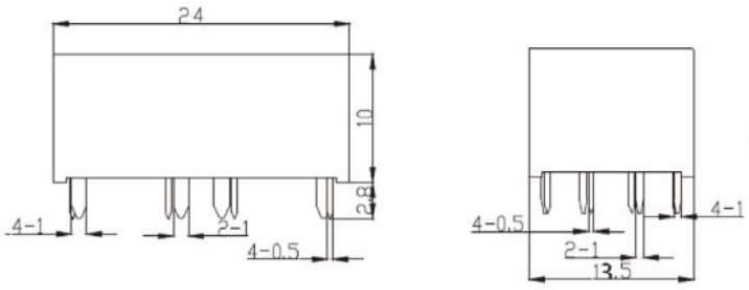
■ 外形尺寸、PCB 布局、接线图 Outline Dimensions, PCB Layout, Wiring Diagram (mm)

◆ 外形尺寸 Outline Dimensions

- 1组常开1 Form A/1组转换1 Form C

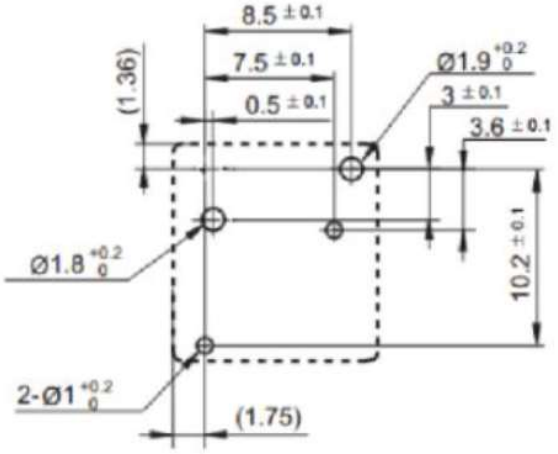


- 2组常开2 Form A/2组转换2 Form C

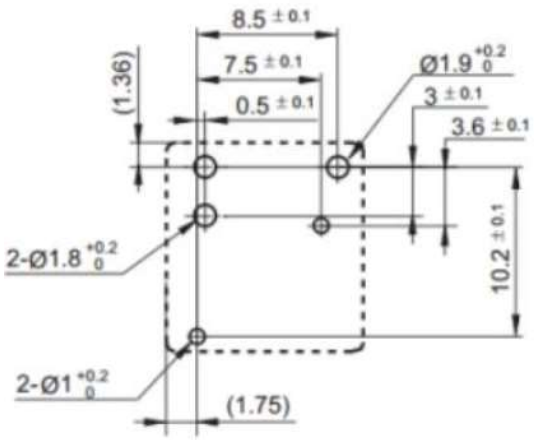


◆ 印刷线路板加工尺寸 PCB Outline Dimension Bottom View

- 1组常开1 Form A



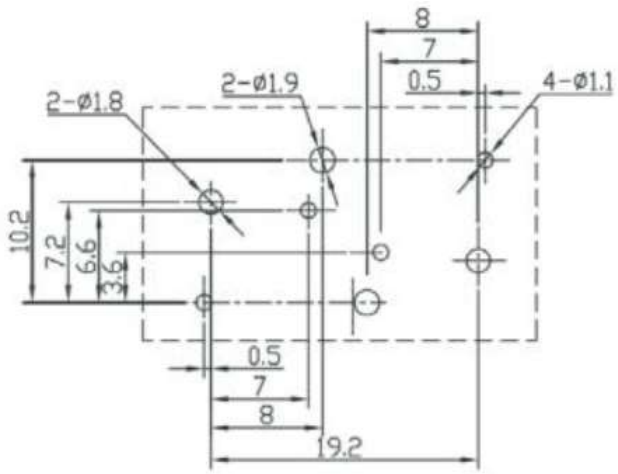
- 1组转换1 Form C



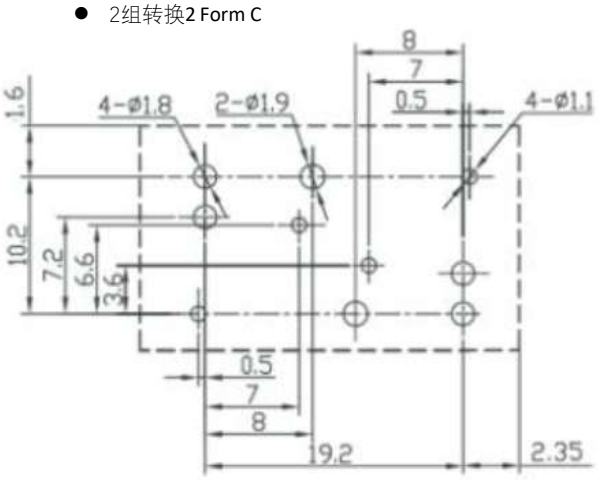
■ 外形尺寸、PCB 布局、接线图 Outline Dimensions, PCB Layout, Wiring Diagram (mm)

◆ 印刷线路板加工尺寸 PCB Outline Dimension Bottom View

● 2组常开2 Form A

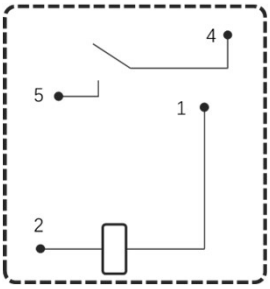


● 2组转换2 Form C

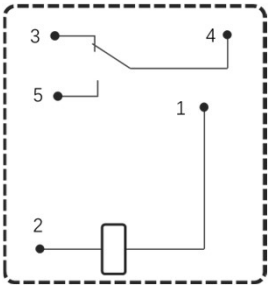


◆ 接线图 Wiring Diagram Bottom View

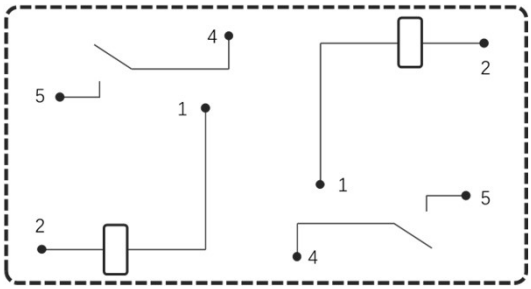
● 1组常开1 Form A



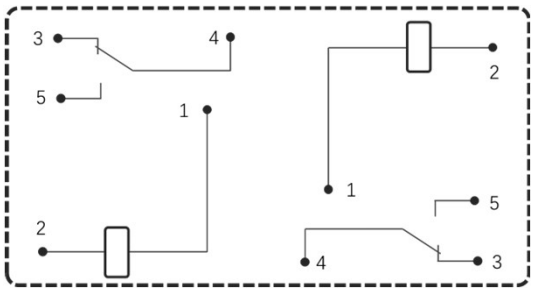
● 1组转换1 Form C



● 2组常开2 Form A



● 2组转换2 Form C



注 Note:

未注尺寸公差 Unspecified tolerance : <1mm: ±0.2 mm, 1~5 mm: ±0.3mm, >5mm: ±0. 5mm ;

安装孔尺寸中未注尺寸公差为± 0.1 mm PC board layout dimensions hadn't specified tolerance is ±0.1mm.