

## 汽车继电器 Automotive Relay

60A/80A

### 特性 / FEATURES

- 80A触点切换能力  
80A switching capability
- 工作温度高达125°C  
Extended temp. range upto 125°C
- 多种安装方式  
Variety of installations
- 防尘型和密封型  
Dustproof and sealed type



**RoHS**  
Compliant

### 订购信息 / ORDERING INFORMATION

## SLDH-12-S-1-R-C

	A/B/C	触点形式 Contact Arrangement
	R:电阻/Resistor D:二极管/Diode 无: 无并联元件/Without: without parallel components	线圈并联元件 Parallel Coil Components
	1.PCB 端子/PCB terminal 2.塑料柄, 快连接端子/Plastic bracket, QC terminal 3.金属柄, 快连接端子/Metal bracket, QC terminal 无: 快连接端子/Without: QC terminal	结构形式 Version
	S:密封/Sealed 无:防尘/Dustproof	封装形式 Construction
	12VDC/24VDC	线圈电压 Coil Voltage
		型 号 Model

### 触点参数 / CONTACT PARAMETERS

触点形式	Contact arrangement	A/B/C
接触压降(10A下测量)	Voltage drop (at 10A)	≤200mV
触点材质	Contact material	银合金/Silver alloy: AgSnQInQ <sub>3</sub> , AgSnO <sub>2</sub> , AgNi
触点负载	Contact rating	60A/80A 14VDC
最大切换电压	Max switching voltage	详见允许最大负载范围曲线/See“Load limit curve”
最大切换电流	Max switching current	80A (阻性/Resistive 14VDC)
最小负载	Min contact load	1A 6VDC
电耐久性 (频率:每小时900次)	Electrical endurance (Frequency:900 ops/h)	1x10 <sup>6</sup> ps
机械耐久性 (频率:每小时18000次)	Mechanical endurance (Frequency:18000 ops/h)	1x10 <sup>6</sup> ps

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### 特性参数 / CHARACTERISTICS PARAMETERS

绝缘等级	Insulation level	Class B / Class F	
绝缘电阻	Insulation resistance	100MΩ (500VDC)	
介质耐压 (漏电流 1mA)	Dielectric strength (Leakage current 1mA)	线圈与触点间耐压 Dielectric strength (Between coil and contacts)	500VAC 1分钟/minute
		断开触点间耐压 Dielectric strength (Between open contacts)	500VAC 1分钟/minute
吸合时间(额定电压下)	Operate time (at nominal voltage)	≤10ms	
释放时间(额定电压下)	Release time (without diode)(at nominal voltage)	≤10ms	
湿度	Humidity	5% ~ 85% RH	
环境温度	Ambient temperature	-40°C ~ +125°C	
抗振动	Vibration resistance	10Hz~55Hz 3.0mm 双振幅/Double amplitude	
		55Hz~500Hz 100m/s <sup>2</sup>	
抗冲击	Shock resistance	294m/s <sup>2</sup>	
重量	Weight	约/Approx 40g	
封装形式	Construction	防尘型/Dustproof 密封型/Sealed type	

备注: 以上数据均为初始值

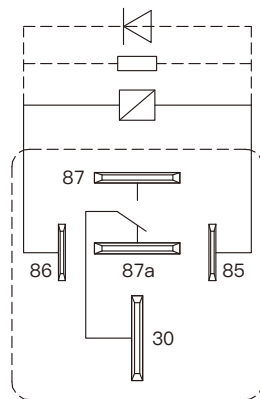
Remark: All above data is initial value

### 线圈参数 / COIL PARAMETERS

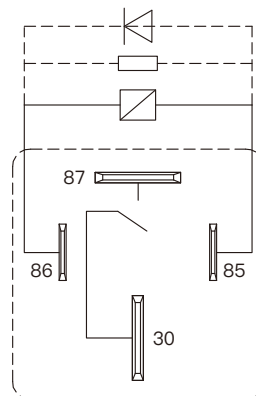
常温/At 23°C

功耗(W)	Power consumption(W)	1.6W	1.8W	1.6W	1.8W	1.8W	2.0W
额定电压(VDC)	Nominal voltage(VDC)	12	12	24	24	24	24
线圈电阻(Ω±10%)	Coil resistance(Ω±10%)	90	90	360	360	320	320
并联电阻(Ω)	Parallel resistance(Ω)		680		2700		2700
吸合电压(Max)	Pick-up voltage(Max)	65%额定电压(Nominal voltage)					
释放电压(Min)	Drop-out voltage(Min)	10%额定电压(Nominal voltage)					
允许最大电压(VDC)	Max allowable overdrive voltage(VDC)	150%额定电压(Nominal voltage)					

### 线路图(底视图) / WIRING DIAGRAM (BOTTOM VIEW)



转换C型/Conversion C type

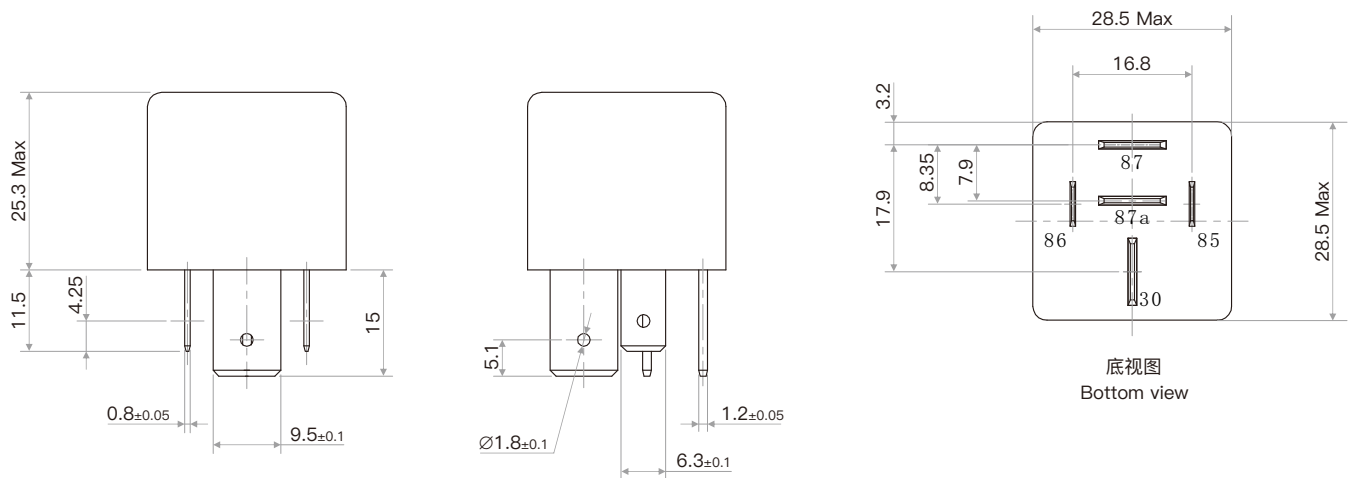


常开A型/Normally open A type

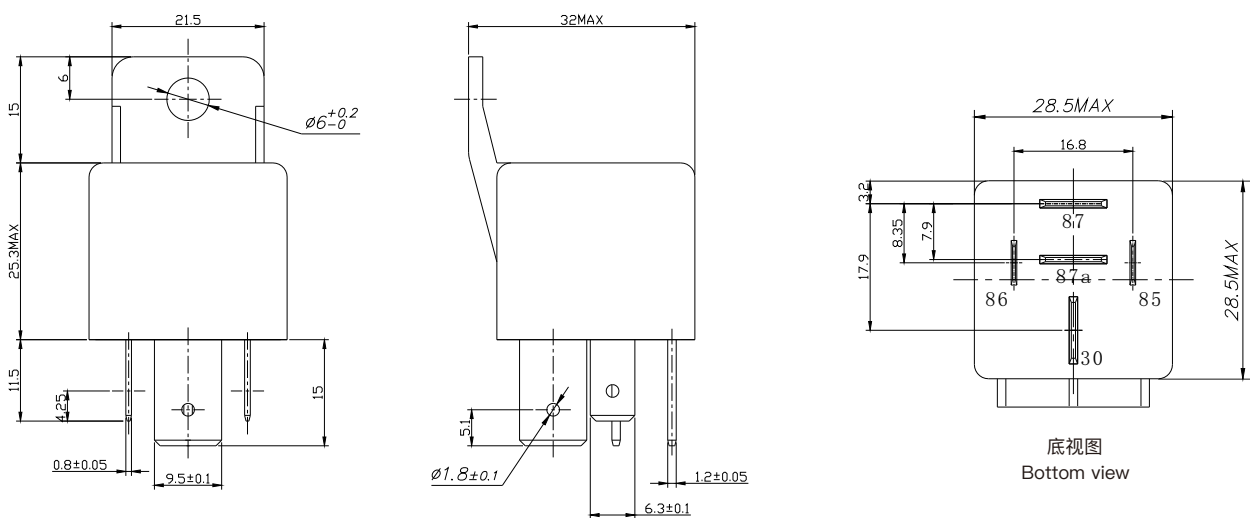
### 外形图 / OUTLINE DIMENSIONS

单位/Unit(mm)

#### SLDH-12(24)-(S)-R(D)-C(A/B)



#### SLDH-12(24)-(S)-2-R(D)-C(A/B)



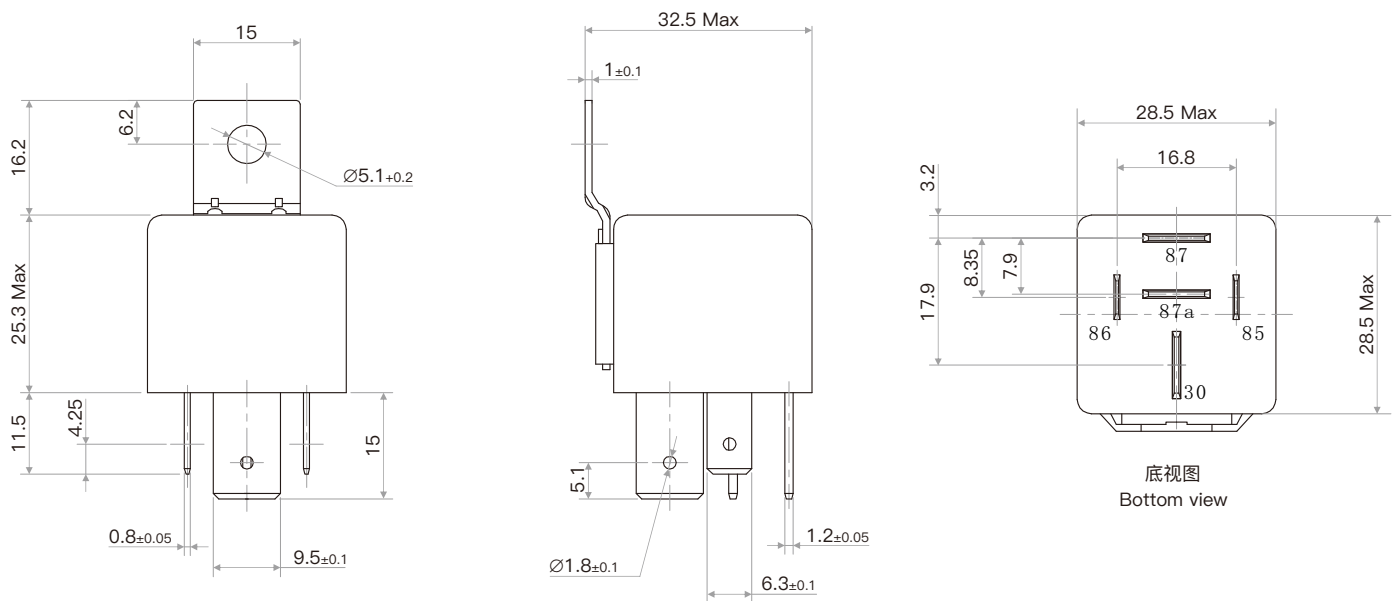
未注公差/Tolerance:±0.3

端子垂直度/Terminal vertical deviation tolerance:0.3mm

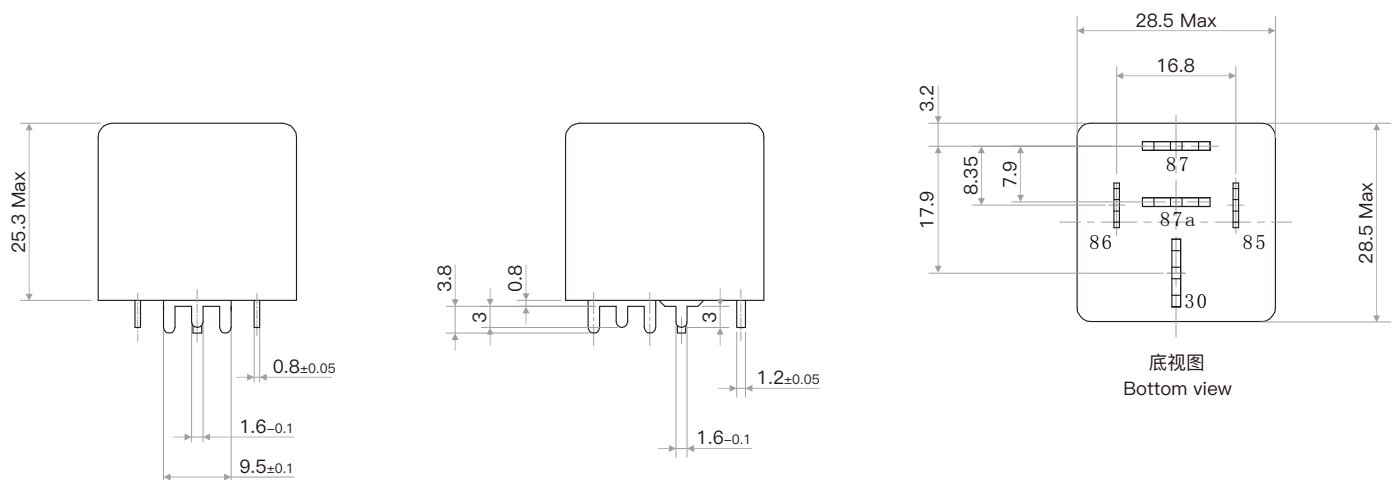
## 外形图 / OUTLINE DIMENSIONS

单位/Unit(mm)

### SLDH-12(24)-(S)-3-R(D)-C(A/B)



### SLDH- 12(24)-(S)-1-R(D)-C(A/B)



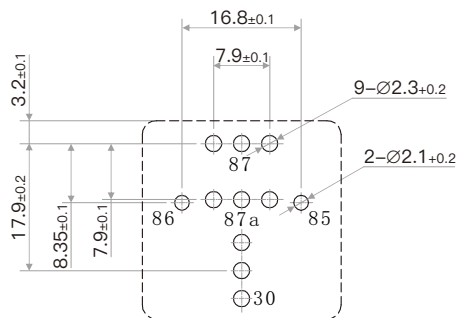
未注公差/Tolerance:  $\pm 0.3$

端子垂直度/Terminal vertical deviation tolerance: 0.3mm

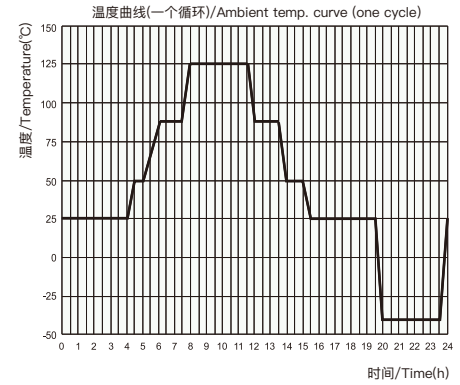
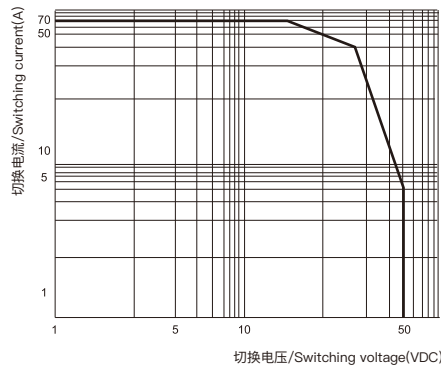
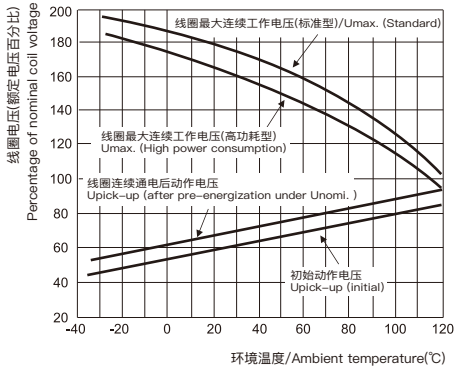
## 安装孔图(底视图) / INSTALLATION HOLE DRAWING (BOTTOM VIEW)

单位/Unit(mm)

SLDH- 12(24)-(S)-1-R(D)-C(A/B)



### 性能曲线图 / CHARACTERISTIC CURVES



#### 线圈连续通电电压范围 Coil operating voltage range

- (1) 曲线在触点无负载电流条件下适用。
- (2) 动作电压与线圈预通电时间、预通电电压有关，在预通电后检测动作电压，其值会变大。
- (3) 线圈最大允许温度为180°C，考虑到电阻法所测量的线圈温升是平均值，推荐在不同使用环境、不同线圈电压、不同负载条件下测量时，线圈温度应小于170°C。
- (4) 当线圈实际工作电压超出曲线规定范围时，请联系松乐并提供详细使用条件。

- (1) There should be no contact load applied when maximum continuous operation voltage is applied on coil.
- (2) The operating voltage is connected with coil energized time and voltage. After energized, the operating voltage will increase.
- (3) The maximum allowable coil temperature is 180°C. Considering the coil temperature rise which is measured by resistance is average value, we recommend the coil temperature should be below 170°C under the different application ambient, different coil voltage and different load etc.
- (4) If the actual operating coil voltage is out of the specified range, please contact Songle for further details.

#### 允许最大负载范围(23°C) Load limit curve (at 23°C)

- (1) 触点负载为阻性负载。
- (2) 产品按触点参数表进行负载与耐久性试验，当实际使用的负载电压、电流、动作频率任一项与触点参数表不同时，请重新进行确认试验。
- (3) 该曲线只针对80A负载产品。

- (1) The contact load is resistive.
- (2) The load and electrical endurance tests are made according to "CONTACT DATA" parameters' table. If actual load voltage, current, or operate frequency is different from "CONTACT DATA" table, please arrange corresponding tests for confirmation.

#### 电耐久性试验环境温度曲线 Ambient temperature curve of the electrical endurance test

- (1) 最低温度为-40°C。
- (2) 最高温度为125°C。

- (1) The minimum temperature is -40°C.
- (2) The maximum temperature is 125°C.