ST5F-1 小型信号继电器 Miniature Signal Relay

特性 Features

- 2A触点切换能力 2A contact switching capability
- 高灵敏度可选 High sensitivity optional
- 超小型、 标准双列直插引出脚 Ultra-small, standard double-in-line pin
- 外形尺寸 Outline dimension （12.4x7.4x10) mm

典型应用 Application

- 通信设备、AV设备、电话、安防相关等设备 Communication equipment, AV equipment, telephone, security related equipment.

触点参数 Contact Data

触点形式 Contact Arrangement	1C
触点额定 Contact Rating	2A 120VAC 2A 24VDC
最大切换电压 Max. Switching Voltage	120VAC/60VDC
最大切换电流 Max. Switching Current	2A
触点材质 Contact Material	银合金 Ag alloy
接触电阻 Contact Resistance	Max.100mΩ (1A 6VDC)
动作/释放时间 Operate Time/ Release Time	≤4ms/≤3ms
最小切换负载 Min. switching load	10mA 5V
电耐久性 Electrical Endurance	$1*10^5$ops.(最大转换频率：1800次/小时 Maximum conversion frequency: 1800 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	240VA/48W

性能参数 Characteristics

绝缘电阻 Insulation Resistance		1000MΩ Min （at 500VDC)
介质耐压 Dielectric Strength	断开触点间 Between Open Contacts	400Vrms 1min
	线圈与触点间 Between Coil and Contact	1000Vrms 1min
温度范围 Temperature Range		-30~+85℃
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	10G
	强度 Destructive	100G
重量 Weight		Approx.2.2g

线圈参数 Coil Data （标准型 Standard)

线圈电压范围 Coil Voltage Range	3~24 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	0.36W

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%)
3	2.25	0.3	25
5	3.75	0.5	69
6	4.5	0.6	100
9	6.75	0.9	225
12	9.0	1.2	400
24	18.0	2.4	1600

线圈参数 Coil Data （灵敏型 Sensitivity)

线圈电压范围 Coil Voltage Range	3~24 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	0.2W

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%)
3	2.25	0.3	45
5	3.75	0.5	125
6	4.5	0.6	180
9	6.75	0.9	405
12	9.0	1.2	720
24	18.0	2.4	2880

线圈参数 Coil Data（高灵敏型 High Sensitivity)	
线圈电压范围 Coil Voltage Range	3~24 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	0.15W

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（高灵敏型 High 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%)
3	2.4	0.15	60
5	4.0	0.25	167
6	4.8	0.3	240
9	7.2	0.45	540
12	9.6	0.60	960
24	19.2	1.20	3840

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.

■ 型号命名标准 Model Number Legend

	ST5F-1	12	L	S	,XXX

基本型号 Basic Type:

ST5F-1

线圈电压 Coil voltage:

03, 05, 06, 09, 12, 24VDC

线圈功耗 Coil Power:

Blank: 0.36W; L: 0.2W; SL:0.15W

防护构造 Protective Construction:

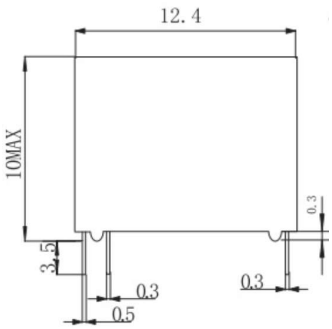
Blank: 耐助焊剂型 Flux Tight ; S: 塑料密封型 Sealed

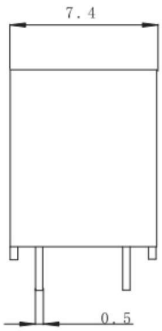
特殊特性 Special Characteristic:

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

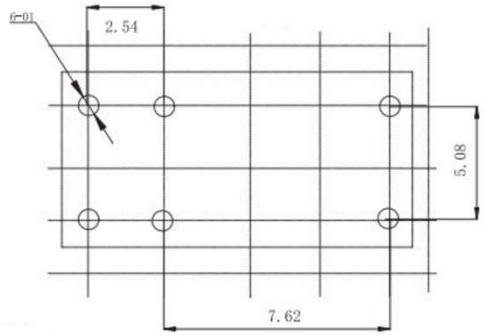
■ 外形尺寸、PCB 布局、接线图 Outline Dimensions, PCB Layout, Wiring Diagram (mm)

◆ 外形尺寸 Outline Dimensions

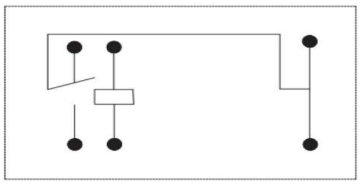




◆ 印刷线路板加工尺寸 PCB Outline Dimension Bottom View



◆ 接线图 Wiring Diagram Bottom View



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.