ST102 小型大功率继电器 PCB Miniature High Power Relay

特性 Features

- 25A负载开闭能力 25A switching capability
- 负载可达6925VA Heavy load up to 6925VA
- 4.5kV介电强度(线圈与触点之间) 4.5kV dielectric strength (between coil and contacts)
- PCB和快插端子可用 PCB and quick-plug terminals are available
- UL绝缘系统:F级 UL insulation system: Class F
- 环保产品(符合RoHS标准) Environmental friendly product (RoHS compliant)
- 尺寸 Dimensions：30.4 x 16.0 x 23.3 mm (PCB&QC)
  30.4 x 16.0 x 29.8 mm (Bracket)

典型应用 Application

- 家用电器/理想的马达开关/ A/C控制/冰箱/电子热水器等。 Home Appliances / Ideal for motor switching / A/C Control / Refrigerator / Electronic Water Heater, etc.

触点参数 Contact Data

触点形式 Contact Arrangement	1A
触点额定 Contact Rating	25A 277VAC/30VDC 1.5HP 125VAC 1.5HP 250VAC TV-10 120VAC inrush current: 80A 250VAC (cos θ=0.7)
最大切换电压 Max. Switching Voltage	277VAC/30VDC
最大切换电流 Max. Switching Current	25A (resistive)
触点材质 Contact Material	银合金 Ag alloy
接触电阻 Contact Resistance	Max.100mΩ (1A 5VDC)
电耐久性 Electrical Endurance	$1*10^5$ops (25A 250VAC, 阻性负载 R-Load, Room temp, on:off=1s:9s)
机械耐久性 Mechanical Endurance	$2*10^6$ops
动作/释放时间 Operate/Release time	≤20ms/≤10ms
最大切换功率 Max. Switching Power	6925VA

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	1000Vrms 1min
	线圈与触点间 Between Coil and Contact	4500Vrms 1min
温度范围 Temperature Range		-40~+85℃
湿度 Ambient Operating Humidity		5%～85%RH
振动 Vibration Resistance		10~55Hz double amplitude 1.5mm
冲击 Shock	稳定性 Functional	20G
	强度 Destructive	100G
重量 Weight		Approx.28g

线圈参数 Coil Data

线圈电压范围 Coil Voltage Range	3~48 VDC
容许最大电压 Max. Continuous	额定电压的120% 120% of Rated Voltage
线圈绝缘等级 Coil Insulation System	Class F
额定线圈功率 Coil Rating Power	约Approx. 0.9W

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.

b) 最大电压是指继电器线圈在短时间内所能承受的最大电压 Maximum voltage refers to the maximum voltage which relay coil could endure in a short period of time.

线圈规格 Coil Voltage Specifications

线圈电压 Coil Voltage	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	10
5	3.75	0.5	28
6	4.50	0.6	40
9	6.75	0.9	90
12	9.00	1.2	160
24	18.0	2.4	640
48	36.0	4.8	2560(1±15%)

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

ST102	Q	-1A	-12	S	F	,XXX

基本型号 Basic Type:

ST102

结构 Structure:

Blank: PCB型 PCB Type

Q: PCB&快插端子 PCB and Q&C Type

B: 支架盖 Bracket cover

触点结构 Contact Arrangement:

1A: 1组常开 1 Form A

线圈电压 Coil voltage:

3, 5, 6, 9, 12, 24, 48VDC

防护构造 Protective Construction:

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

绝缘等级 Insulation Class:

F: F级 Class F

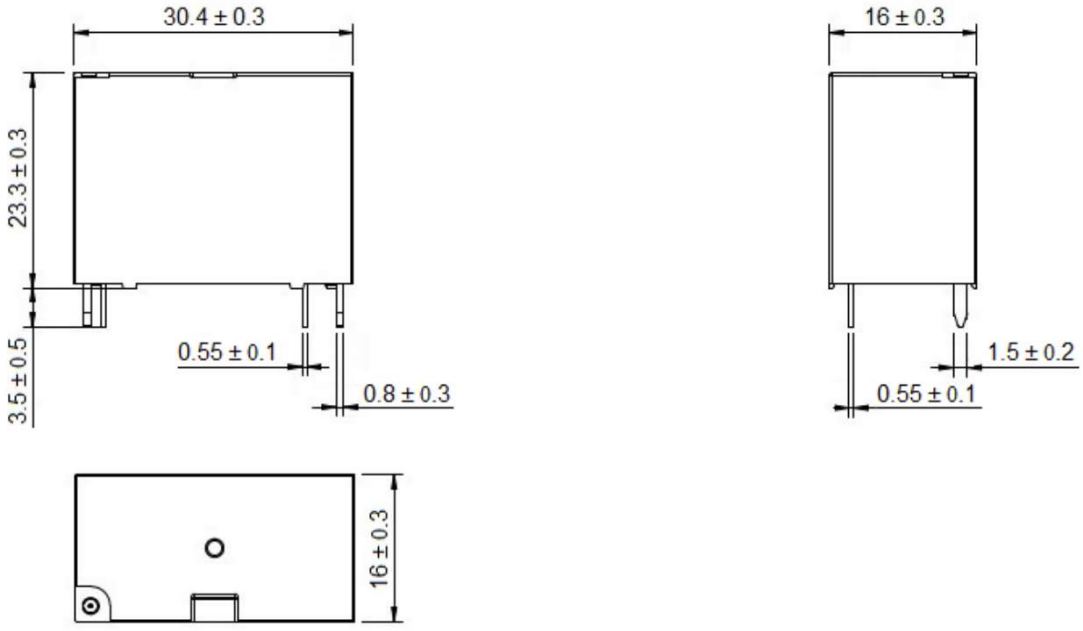
特殊特性 Special Characteristic:

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

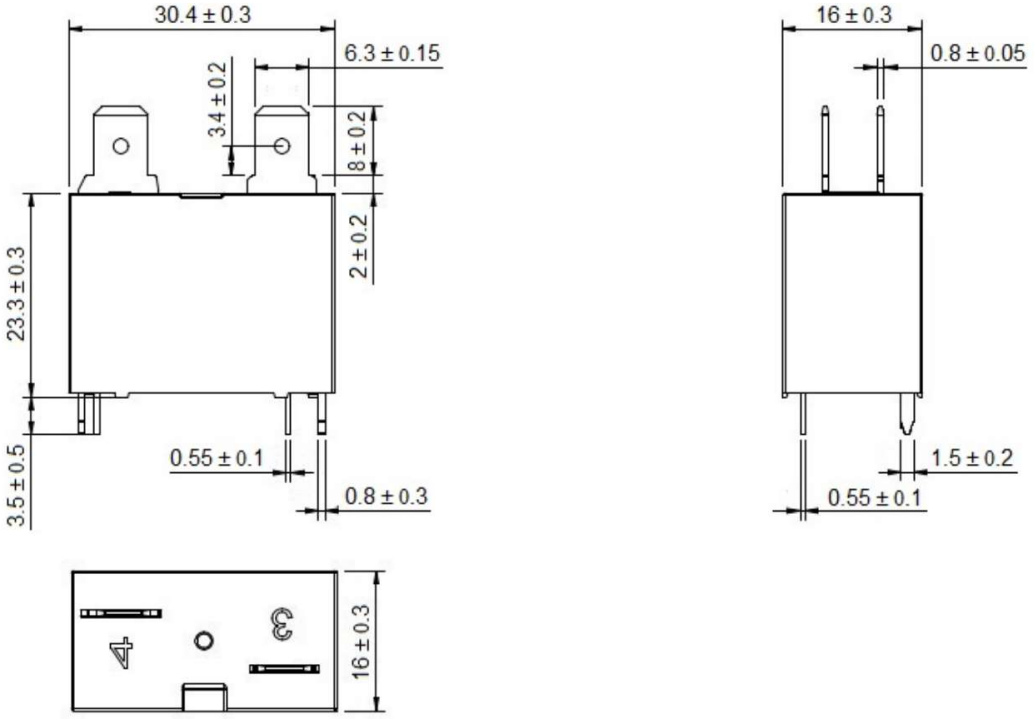
● ST102型 PCB Type



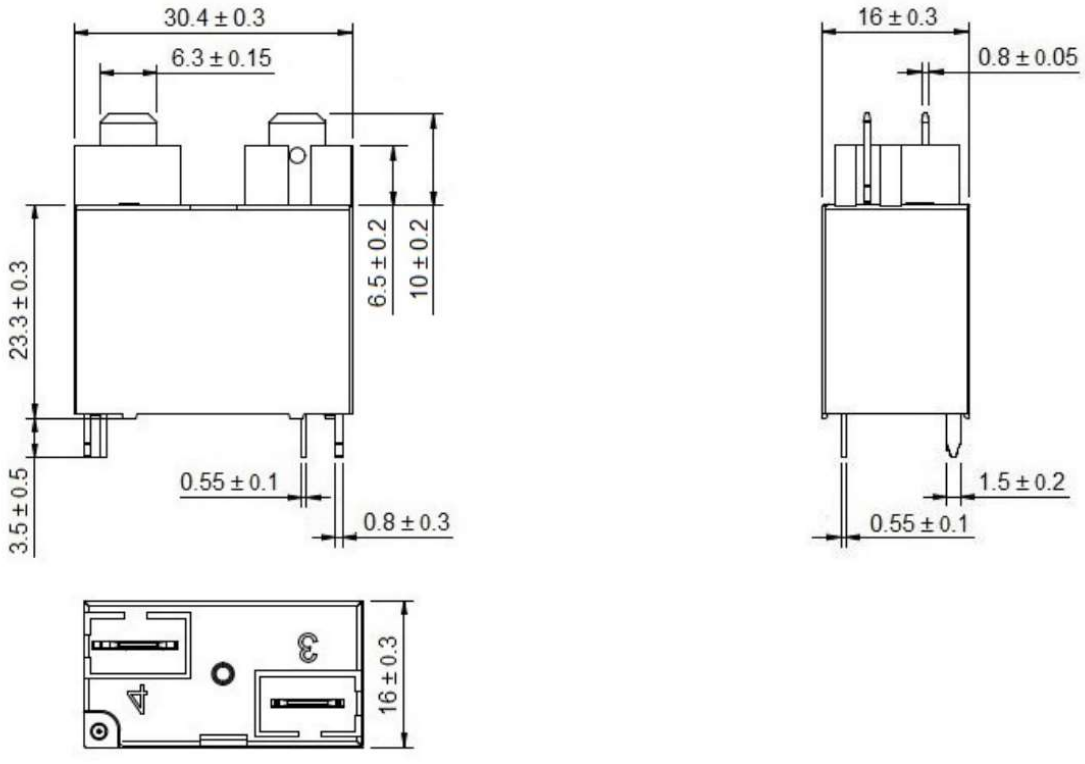
■ 外形尺寸、PCB 布局、接线图 Outline Dimensions, PCB Layout, Wiring Diagram (mm)

◆ 外形尺寸 Outline Dimensions

- ST102Q型　PCB and Q&C Type

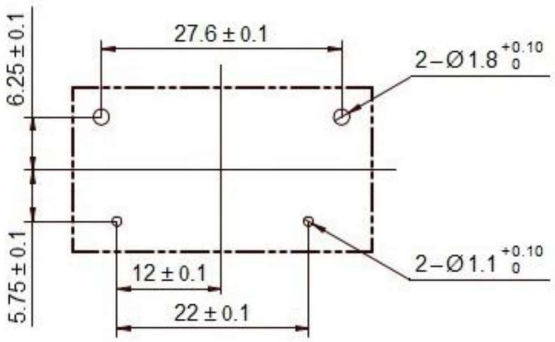


- ST102B型　Bracket Cover Type

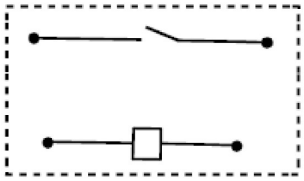


■ 外形尺寸、PCB 布局、接线图 Outline Dimensions, PCB Layout, Wiring Diagram (mm)

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



◆ 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.