

ARTICLE CODE

S13-12 A L

S13 Series



Nil:0.45W
L:0.20W

Nil:1C
A:1A

Coil Voltage
3,5,6,9,12,18,24,48 VDC

Model Name:S13

Main Features:

- 1 form A and 1 form C contact
- Small size produces a switching capacity up to 10amps for high density PCB mounting technique
- Surge strength 3,000 VAC
- Special design for household appliances flux free and sealed type available

COIL RATING(at 20°C)

Nominal Voltage (VDC)	Coil Resistance (Ω)(±10%)		Power Consumption(W)	Nominal Current (mA)(±10%)		Pull In Voltage (VDC)	Drop Out Voltage (VDC)	Max. Allowable Voltage (VDC)
	0.45W	0.2W		0.45W	0.2W			
3V	20 Ω	45Ω	Nil:0.45W L:0.2W	150.0mA	66.7mA	75% MAX	5% MIX	130%
5V	55 Ω	125Ω		90.9mA	40.0mA			
6V	80 Ω	180Ω		75.0mA	33.3mA			
9V	180Ω	400Ω		50.0mA	22.5mA			
12V	320Ω	720Ω		37.5mA	16.7mA			
18V	720Ω		25.0mA			
24V	1280Ω	2800Ω		18.8mA	8.6mA			
48V	5100Ω		9.4mA			

PERFORMANCE(at initial value)

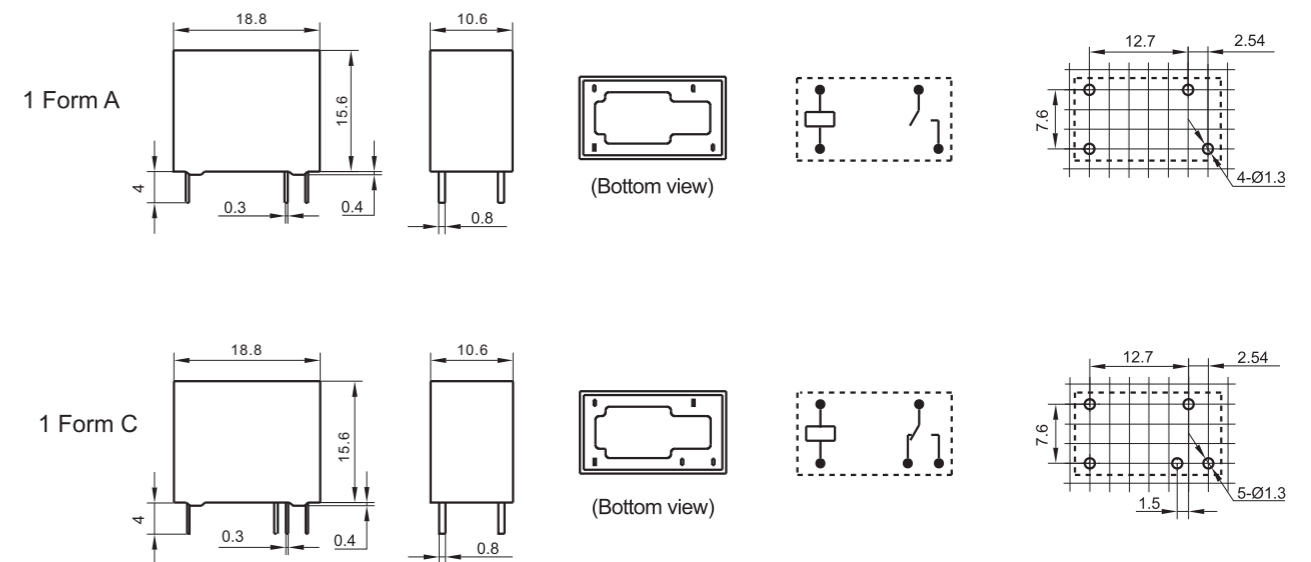
Item	Type	5A	10A
Contact Resistance		100mΩ	Max.(Initial Value)
Operate Time		8msec Max.	
Release Time		5msec Max.	
Dielectric Strength between Coil & Contact between Contact		4000ACV(1min) 1000VAC(1min)	
Surge Resistiveness		5,000V	
Insulation Resistance		100MΩ Min.(DC500V)	
Operating Ambient Temperature		-30°C ~+55 °C	
Humidity		45 to 85% RH	
Vibration Resistance		10G(10~55Hz) (Dual Amplitude:1.5mm)	
Shock Resistance		10G	
Life Expectancy Mechanically Electrically		10,000,000 ops.Min.(1800 ops./h) 100,000 ops.Min.(1200 ops./h)	
Weight		7g(approx.)	

CONTACT RATING

Item	Type	5A	10A
Rated Carrying Current		5A/250VAC 5A/30VDC	10A/250VAC 10A/30VDC
Max. Allowable Current		5A	10A
Max. Allowable Voltage		30VDC 277VAC	
Max. Current(Continual)		5A	10A
Min. Load		5VDC 10mA	
Contact Material		Ag alloy	

OUTLINE DIMENSION, WIRING DIAGRAM & PC BOARD LAYOUT

Unit: mm



Outline Dimensions

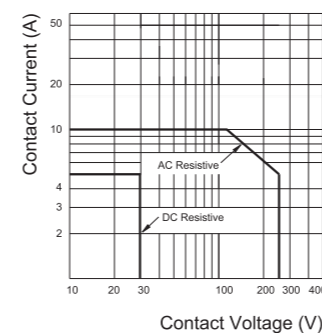
Wiring Diagram (Bottom view)

PCB Layout (Bottom view)

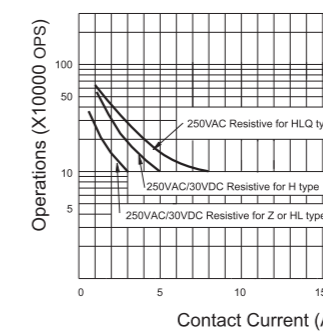
Remark: 1) In case of no tolerance shown in outline dimension: outline dimension ≤1mm, tolerance should be ±0.2mm; outline dimension >1mm and ≤5mm, tolerance should be ±0.3mm; outline dimension >5mm, tolerance should be ±0.4mm.
2) The tolerance without indicating for PCB layout is always ±0.1mm.

CHARACTERISTIC CURVES

MAXIMUM SWITCHING POWER



EDURANCE CURVE



COIL TEMPERATURE RISE

