Miniature High Power Relay	NG

Features

- 4.5KV dielectric strength (between coil and contact)
- 25A switching capability
- Ideal for motor switch
- Heavy load up to 5000VA
- PCB & QC layouts available
- UL insulation system: Class F

c UL us
(File No.:E134581)

1. COIL DATA (at 23°C)

Nominal Voltage (VDC)	Pick-up Voltage (VDC)	Drop-out Voltage (VDC)	Max Allowable Voltage (VDC)	Coil Current (mA)(±10%)	Coil Resistance (Ω)	Coil Power (mW)
5	3.50	0.5	6.00	180	27.8 x (1±10%)	900
12	8.40	1.2	14.4	75.0	160 x (1±10%)	
24	16.8	2.4	28.8	37.5	640 x (1±10%)	
48	33.6	4.8	57.6	18.8	2560 x (1±10%)	

Note:

1) The data shown above are initial values.

2) The maximum allowable voltage refers to the maximum voltage which relay coil could endure in a short period of time.

2. CONTACT DATA

Contact Arrangement		1 Form A
Contact Resistance[1)]		100mΩ Max. (at 1A 6VDC)
Contact Material		$AgSnO_2$
Contact Rating		Resistive: 20A 250VAC Motor: 2HP 240VAC
Max. Switching Voltage		250VAC
Max. Switching Current (Resistive Load)		25A
Max. Switching Power		6,250VA
Life Expectancy	Electrical	100,000 operations
	Mechanical	2,000,000 operations

Notes: 1) The data shown above are initial values.

3. CHARACTERISTICS

Insulation Resistance		1000MΩ (at 500VDC)
Dielectric Strength	Open Contacts	1000VAC 1min
	Coil and Contacts	4500VAC 1min
Operate Time (at nominal voltage)		20ms max.
Release Time (at nominal voltage)		10ms max.
Temperature Rise (at nominal voltage)		60K max.
Shock Resistance	Functional	196m/s^2
	Destructive	980m/s^2
Vibration Resistance		10 ~ 55Hz, 1.5mm DA
Humidity		5 ~ 85% RH
Ambient temperature		-25℃ ~ 85℃
Termination		PCB, PCB & QC
Weight		Approx. 23g
Outline Dimension (L x W x H)		30.5 x 16.0 x 23.5mm

Notes: The data shown above are initial values.

4. ORDERING INFORMATION

NG ①	11 ②	TMP ③	-	D12 ④

① Relay Model	NG
② Contact Arrangement	11: 1 Form A (SPST-NO)
③ Termination	Nil: PCB TMP: PCB & QC
④ Coil Voltage	D5=5VDC, D12=12VDC, D24=24VDC, D48=48VDC

Notes: TMP type is dust protected version which cannot be washed.

5. SAFETY APPROVAL RATINGS

UL / cUL	25A 250VAC 20A 250VAC 1HP 120VAC 2HP 240VAC

Notes:

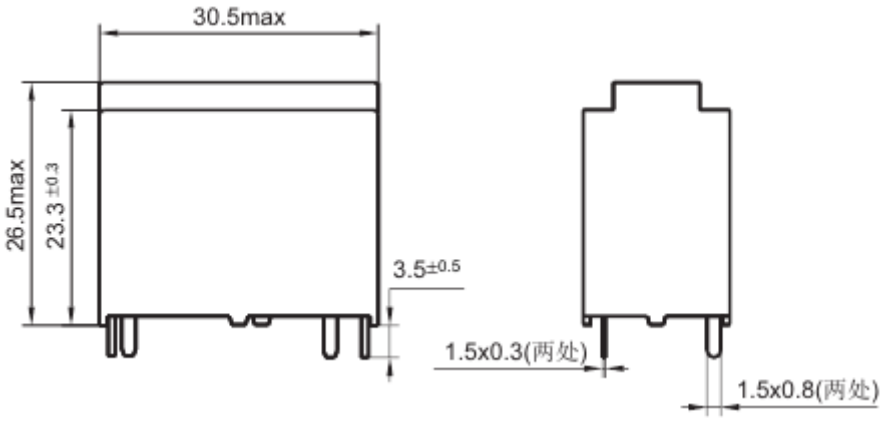
1) All values unspecified are at room temperature.

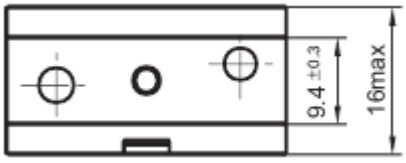
2) Only typical loads are listed above. Other load specifications can be available upon request.

6. DIMENSIONS (Unit: mm)

Outline Dimensions

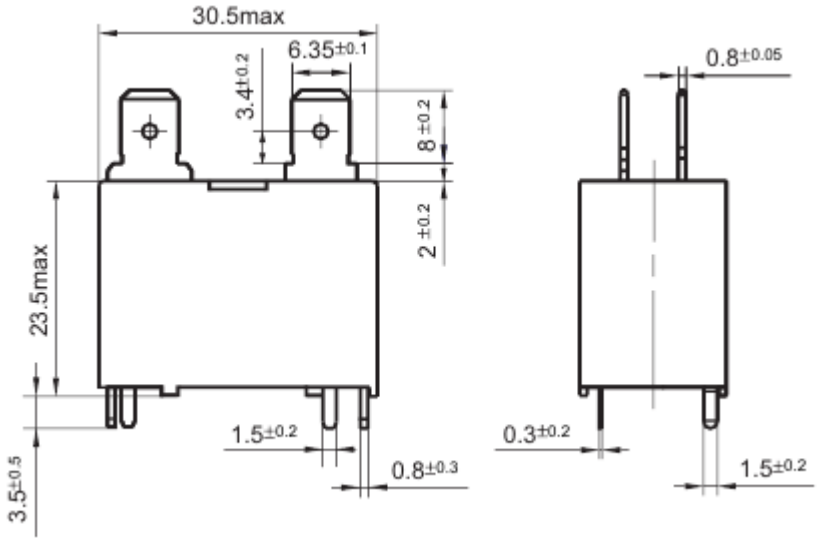
1) PCB

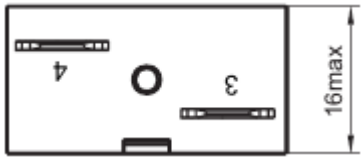




(Top View)

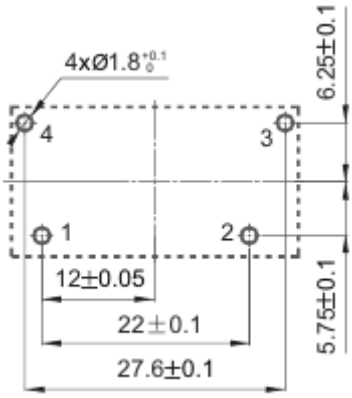
2) PCB & QC



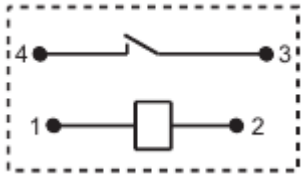


(Top View)

PCB Layout (Bottom view)



Wiring Diagram

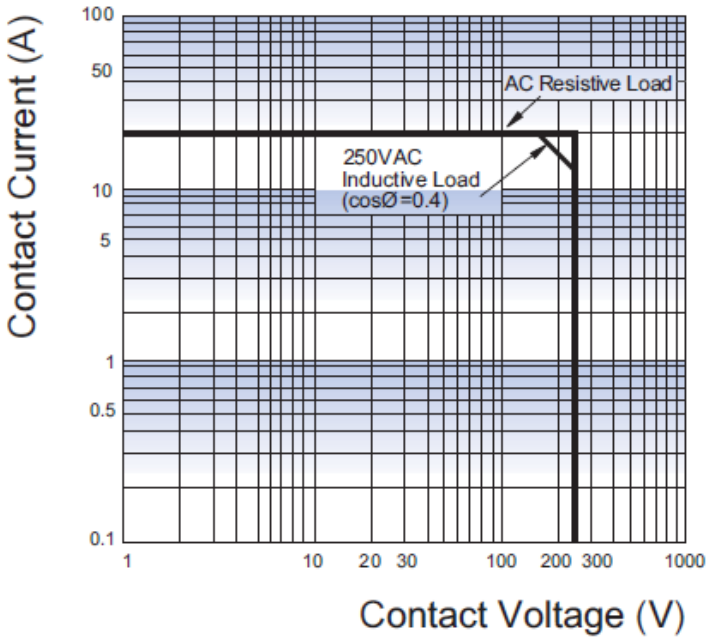


Remark: 1) In case of no tolerance shown in outline dimension: outline dimension ≤1mm, tolerance should be ±0.2mm; outline dimension >1mm and ≤5mm, tolerance should be ±0.3mm; outline dimension >5mm, tolerance should be ±0.4mm.

2) The tolerance without indicating for PCB layout is always ±0.1mm.

7. CHARACTERISTIC CURVES

Maximum Switching Power



Endurance Curve