Subminiature Signal Relay	TA

Features

- Small size and low cost
- DIP standard terminals
- Sealed type
- Surge strength 1500V FCC68

c UL us
(File No.:E122258)

1. COIL DATA (at 20°C)

1) Standard type

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)
3	2.25	0.3	3.90	150	20 x (1±10%)	450
5	3.75	0.5	6.50	90.0	56 x (1±10%)	
6	4.50	0.6	7.80	75.0	80 x (1±10%)	
9	6.75	0.9	11.7	50.0	180 x (1±10%)	
12	9	1.2	15.6	37.5	320 x (1±10%)	
24	18	2.4	31.2	18.7	1280 x (1±10%)	
48	36	4.8	62.4	9.00	5120 x (1±10%)	

2) Sensitive type

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)
3	2.25	0.3	3.90	120	25 x (1±10%)	360
5	3.75	0.5	6.50	71.4	69 x (1±10%)	
6	4.50	0.6	7.80	60.0	100 x (1±10%)	
9	6.75	0.9	11.7	40.0	225 x (1±10%)	
12	9	1.2	15.6	30.0	400 x (1±10%)	
24	18	2.4	31.2	15.0	1600 x (1±10%)	
48	36	4.8	62.4	7.50	6400 x (1±10%)	

3) High-sensitive type

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)
3	2.25	0.3	3.90	66.7	45 x (1±10%)	200
5	3.75	0.5	6.50	40.0	125 x (1±10%)	
6	4.50	0.6	7.80	33.3	180 x (1±10%)	
9	6.75	0.9	11.7	22.2	405 x (1±10%)	
12	9	1.2	15.6	16.7	720 x (1±10%)	
24	18	2.4	31.2	8.30	2880 x (1±10%)	

2. CONTACT DATA

Contact Arrangement		1 Form A, 1 Form C
Contact Resistance		100mΩ max. (at 1A 6VDC)
Contact Material		AgNi
Load		Resistive load (COSΦ=1)
Contact Ratings		3A 120VAC / 24VDC
Minimum Load		1mA 5VDC
Max. Switching Voltage		240VAC / 60VDC
Max. Switching Current		5A
Max. Switching Power		360VA / 90W
Life Expectancy	Electrical	100,000 operations (at 30 operations/minute)
	Mechanical	10,000,000 operations (at 300 operations/minute)

3. CHARACTERISTICS

Insulation Resistance		100MΩ Min. (at 500VDC)
Dielectric Strength	Open Contacts	500VAC 1min
	Coil and Contacts	1000VAC 1min
Operate Time		5ms
Release Time		5ms
Temperature Range		-30℃ ~ 85℃
Shock Resistance	Operating Extremes	10G
	Damage Limits	50G
Vibration Resistance		10 ~ 55Hz, 1.5mm
Max. switching frequency	Mechanical	18,000 operations/hr
	Electrical	1,800 operations/hr
Humidity		40 ~ 85%
Termination		PCB (DIP)
Weight		Approx. 3.5g
Outline Dimension (L x W x H)		15.7 x 10.4 x 11.7mm

4. ORDERING INFORMATION

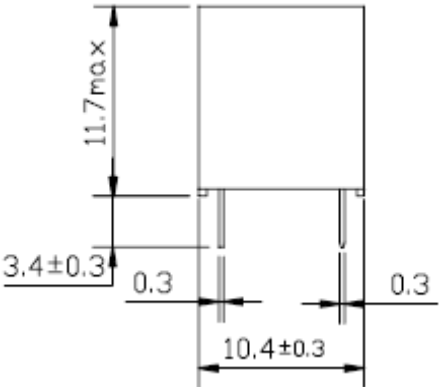
TAA ①	1 ②	-	12 ③	H ④

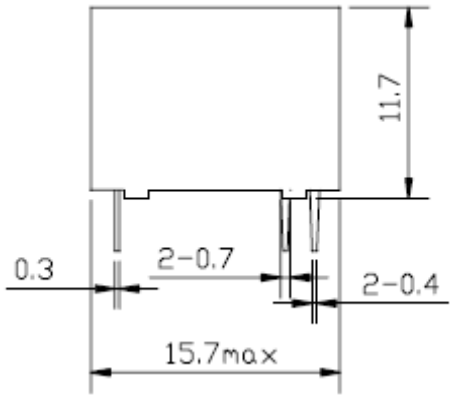
① Relay Model	TAA, TAB
② Contact Arrangement	11: 1 Form A (SPST-NO) 1: 1 Form C (SPDT)
③ Coil Voltage	3=3VDC, 5=5VDC, 6=6VDC, 9=9VDC, 12=12VDC, 24=24VDC, 48=48VDC
④ Coil Power	B: Standard (450mW) N: Sensitive (360mW) H: High-sensitive (200mW)

5. DIMENSIONS (Unit: mm)

1) TAA

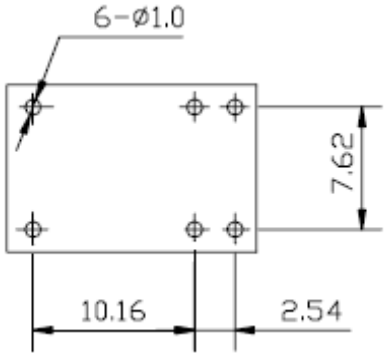
Outline Dimensions

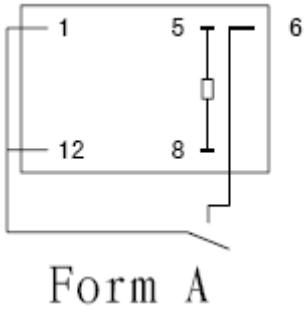


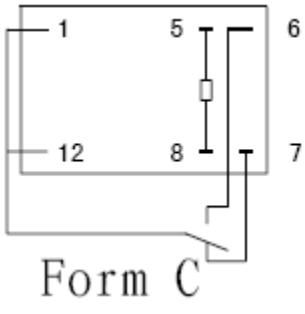


PCB Layout(Bottom View)

Wiring Diagram(Bottom View)

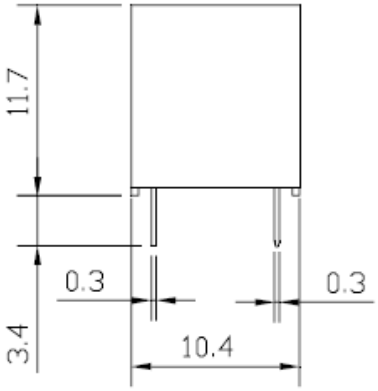


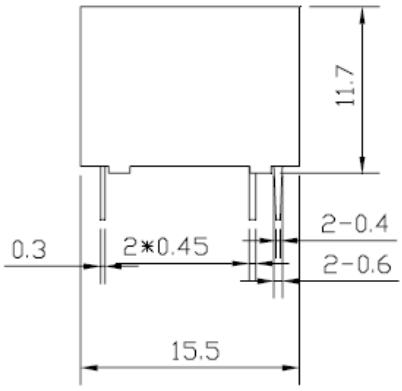




2) TAB

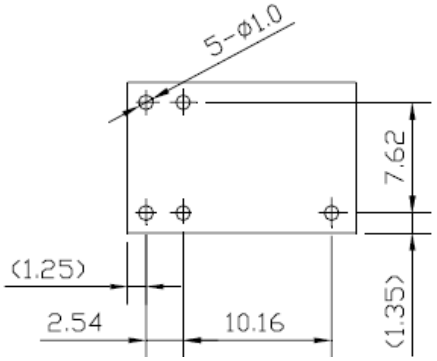
Outline Dimensions

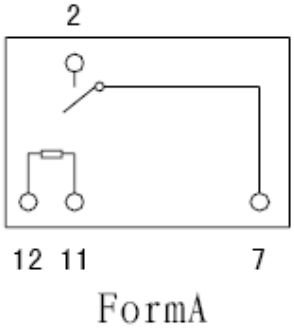


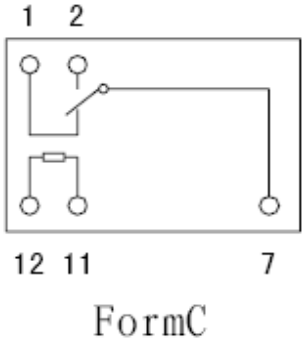


PCB Layout(Bottom View)

Wiring Diagram(Bottom View)





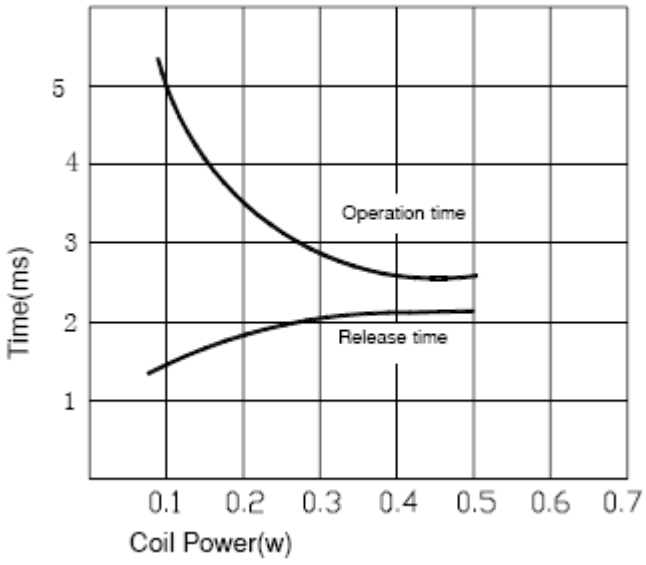


Remark: 1) In case of no tolerance shown in outline dimension: outline dimension ≤1mm, tolerance should be ±0.2mm; outline dimension >1mm and ≤5mm, tolerance should be ±0.3mm; outline dimension >5mm, tolerance should be ±0.4mm.

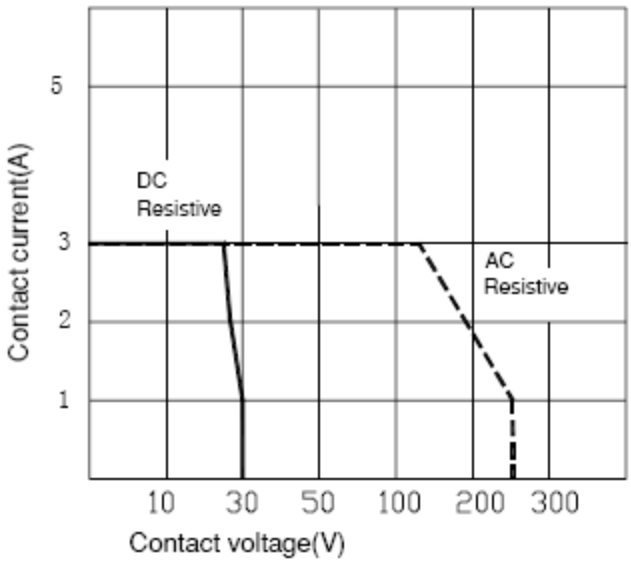
2) The tolerance without indicating for PCB layout is always ±0.1mm

6. CHARACTERISTIC CURVES

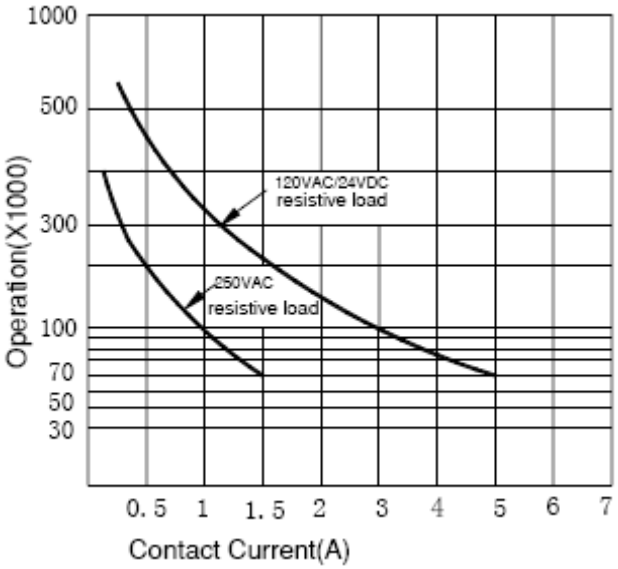
Timing



Coil Temperature Rise



Life Expectancy



Ambient Temperature
Vs. Maximum Voltage