RELAY SPECIFICATION SHEET

CUSTOMER NAME:

1 TYPE·MODEL

1.1	TYPE	ORWH-SH-112D1F
1.2	OUTLINE	See attachment
1.3	CONTACT ARRANGEMENT	SPDT(1C)
1.4	CONTACT MATERIAL	Ag Alloy

2 SAFETY STANDARD

2.1	FOREIGN STANDARD	UL,TUV

3 COIL RATING

3.1	RATED VOLTAGE	12VDC
3.2	COIL RESISTANCE	400Ω (±10%)
3.3	NORMINAL OPERATING POWER	about 0.36W
3.4	MAX. ALLOWABLE COIL VOLTAGE	110% of rated coil voltage (at 20℃)

4 CONTACT SPECIFICATION

4.1	CONTACT RATING	NO:15A/120VAC, 10A/277VAC(resistive)
4.2	RATED CONTACT CURRENT	NO:15A
4.3	MAX. CONTACT CAPACITY	NO:2770VA, 300W
4.4	MAX. SWITCHING VOLTAGE	277VAC, 30VDC

5 PERFORMANCE

5.1	CONTACT RESISTANCE	100mΩ Max. (at initial stage) voltage drop test method at 6VDC 1A
5.2	OPERATE VOLTAGE	9.0VDC Max. (at 20℃)
5.3	RELEASE VOLTAGE	1.2VDC Min. (at 20℃)
5.4	OPERATE TIME	10ms Max. at rated voltage. (Exclude bounce time)
5.5	RELEASE TIME	5ms Max. at rated voltage. (Exclude bounce time)
5.6	LIFE	
	(1) ELECTRICALLY	
	Resistive load:	NO:10A 277VAC 100,000ops. Min. (10 ops/minute)
	(2) MECHANICALLY	10,000,000 ops. Min. at no load. (300 ops./minute)
5.7	DIELECTRIC STRENGHT (Leak current: 1mA)	
	(1) BETWEEN CONTACTS	750VAC for 1 minute
	(2) BETWEEN COIL TO CONTACTS	1,500VAC for 1 minute.
5.8	INSULATION RESISTANCE	Between contacts and coil to contact 100MΩ Min. at 500VDC

5.9 SURGE RESISTIVENESS	Between coil to contact 3kV (1.2 / 50 μ s)
5.10 TEMPERATURE RISE	
COIL	40℃Max. by resistance method at contact: 10A Coil: rated voltage
5.11 VIBRATION	
(1) ERROR OPERATION	No error operation than 1ms Max. when vibrate it from 3 directions for 5 minutes. (Amplitude 1.5mm.10 – 55Hz)
(2) ENDURANCE	No construction trouble when vibrate it from 3 directions for 2 hours. (Amplitude 1.5mm. 10 – 55Hz)
5.12 SHOCK	
(1) ERROR OPERATION	No error operation by contact more than 1ms Max. when shocks it from 3 directions 3 times. (at Peak acceleration 100 m/s², Duration 11ms.)
(2) ENDURANCE	No construction trouble when shocks is from 3 directions 3 times. (at Peak acceleration 1,000 m/s², Duration 6ms.)
5.13 TERMINAL STRENGTH	No construction and exterior trouble when push into any terminals by 5N for 10sec.
5.14 THERMAL PROOF	Not any trouble on construction and characteristic when leave in 85℃ 240h after that, leave it in standard condition for 1 hour.
5.15 COLD PROOF	Not any trouble on construction and characteristic when leave in -40℃ 240h after that, leave it in standard condition for 1 hour.
5.16 HUMIDITY PROOF	Insulation resistance 10MΩ Min. Not any troubles on construction and characteristic when leave in 40℃ 90% 240h. After that, leave it in standard condition for 1 hour.
5.17 THERMAL SHOCK	Not any troubles on construction and characteristic when leave it in -40℃ and 85℃temp. Room for 0.5h each. That is one cycle. After 10 cycles has done, leave it on standard condition for 1 hour.
5.18 SOLDERING THERMAL	Not any troubles on construction and characteristic. When dipped into soldering bath 350±10℃ 3.5±0.5sec. or 260±5℃10±1sec.
5.19 SOLDERABILITY	Not any problems solder dipped at 260±5℃ 5±0.5 sec.

6 MARKING

6.1 CASE COLOR	Black
6.2 MARKING POSITION	Top of case
6.3 INK COLOR	White

7 STANDARDS TEST CONDITION

7.1 TEMPERATURE	20±5℃
7.2 HUMIDITY	60±10%
7.3 DIRECTON OF MEASUREMENT	Terminals down position is standard position.

8 OPERATING CONDITION

8.1 TEMPERATURE	–30 to 70℃
	(However, no freeze and no dew condensation)
8.2 HUMIDITY	20 to 85%
8.3 MOUNTING DIRECTION	Terminal down position is standard position

9 STORAGE CONDITION

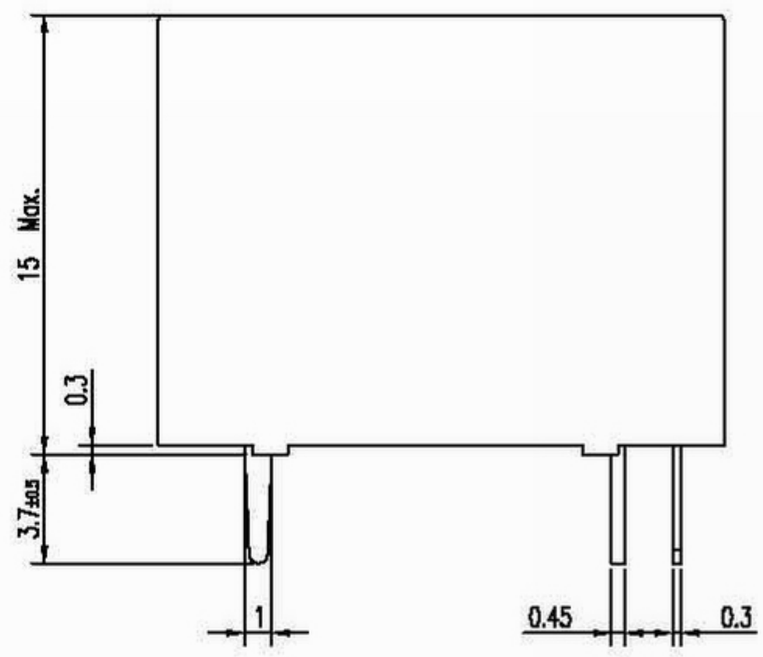
9.1 TEMPERATURE	–30 to 70℃
	(However, no freeze and no dew condensation)
9.2 HUMIDITY	20 to 85%

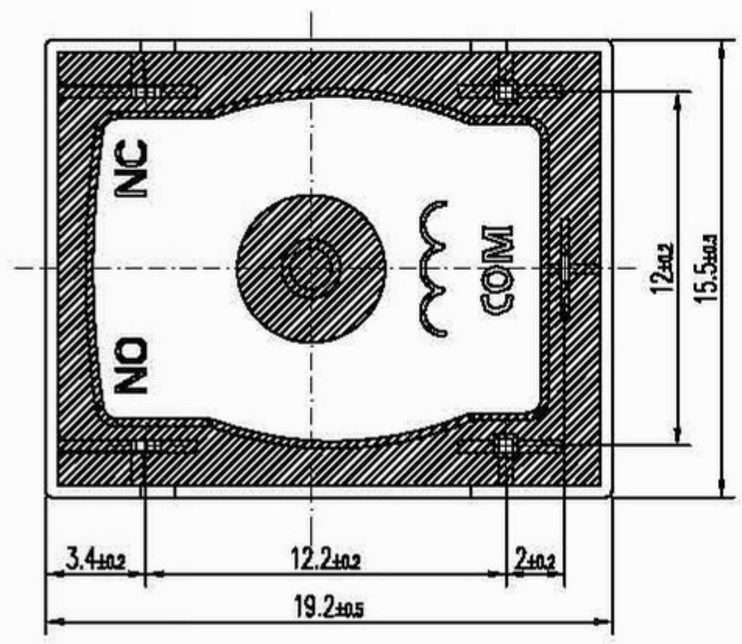
9.3 ENVIRONMENT

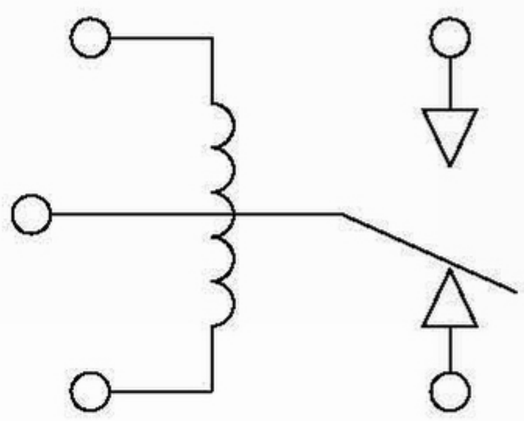
(1) Store in locations where the product or container is not expose to corrosive gas such as hydrogen sulfide gas or salty air.

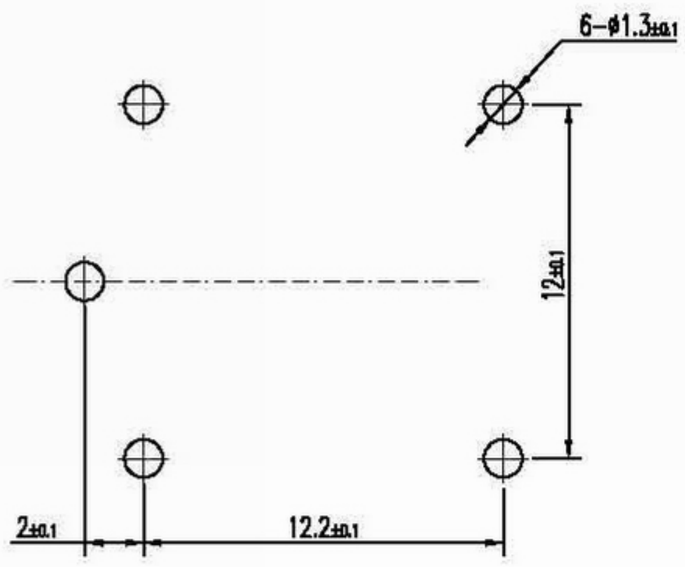
(2) Store in location where no visible dust exists.

(3) Store in location no subject to direct sunlight.


15 Max.
0.3
3.7±0.5
1
0.45
0.3


NC
NO
COM
12±0.2
15.5±0.3
3.4±0.2
12.2±0.2
2±0.2
19.2±0.5




6-ϕ1.3±0.1
12±0.1
2±0.1
12.2±0.1