Features

- ☐ New generation of heavy duty PCB automotive relay.
- ☐ Design for multiple function applications with THT terminals and smallest mounting space.
- ☐ Most current relay can be replaced by 1 relay for Relay box / USM / PDM /Smart Junction box, etc.
- ☐ Contact rating 30A 14VDC.
- ☐ High temperature endurance up to 105°C.
- ☐ Mounting space less than micro ISO relay.
- ☐ Complies with RoHS-Directive 2011/65/EU and ELV-Directive 2000/53/EC.

Type List

Terminal style	Contact form	Enclosure style		
		Flux tight	Sealed type	Sealed type washable
PCB terminal	1A (SPNO)	905-1AH-C	905-1AH-V	905-1AH-S
	1C (SPDT)	905-1CH-C	905-1CH-V	905-1CH-S

Ordering Information

905	-	1A	C	-	S	☐
1		2	3		4	5

1. 905 -- Basic series designation
2. 1A -- Single pole normally open
   1C -- Single pole double throw
3. H -- Contact material AgSnO
4. C -- Flux tight
   V -- Sealed type
   S -- Sealed type washable
5. ☐ -- Coil voltage (please refer to the coil rating data for the availability)

Contact Rating

Resistive load	NO: 30A 14VDC, On 5s / Off 5s, 100K ops. NC: 20A 14VDC, On 5s / Off 5s, 100K ops.
Motor load	Cooling fan : 230W / 14VDC, On 1s / Off 5s, 200K ops.
Lamp load	Head lamp : 120W / 14VDC, On 1s / Off 9s, 200K ops.
Max. carry current	100A/5sec. (25°C nominal voltage) 60A/10sec. (85°C nominal voltage) 40.5A/30min. (85°C nominal voltage)

Coil Rating (DC)

Rated voltage (V)	Rated current ±10 % at 23°C (mA)	Coil resistance ±10 % at 23°C (Ω)	Max. continuous voltage at 105°C (1)	Pick up voltage(Max.) at 23°C	Drop out voltage(Min.) at 23°C	Power consumption at rated voltage
12	60	200	14 V	7.2V	0.6V	approx. 0.72W

Note : (1) With continuous contact current 25A.

Specification

Contact material	AgSnO alloy (2)	
Contact voltage drop (1)	Typ. 50mV at 10A	
Operate time (1)	10ms Max.	
Release time (1)	10ms Max.	
Insulation resistance (1)	100MΩ Min. (DC 500V)	
Dielectric strength (1)	Between open contact : AC 500V, 50/60Hz 1 min.	
	Between contact and coil : AC 500V, 50/60Hz 1 min.	
Vibration resistance	Operating extremes	10～500Hz , 4.4G
	Damage limits	10～500Hz , 4.4G
Shock resistance	Operating extremes	10G
	Damage limits	100G
Life expectancy	Mechanical	10,000,000 ops. (frequency 18,000 ops./hr)
Operating ambient temperature	-40～+105°C (no freezing) (3)	
Weight	Approx. 8.6 g	

Note : (1) Initial value. Operate and release time excluding contact bounce.

(2) Contact material of AgNi is also available, for the details please contact Song Chuan.

(3) Ambient temperature of -40~+125°C is also available, for the details please contact Song Chuan.

(4) Unless otherwise specified, all tests are under room temperature and humidity.

(5) Consider the heat of PCB is necessary, please check the actual condition of PCB.

(6) Applying no diode to this relay. The life expectancy will be lower when a diode is used. To use a varistor (ZNR) could absorb the coil surge of relay that is recommended.

(7) Do not use the relay exceeding the coil rating, contact rating and life expectancy, or this may cause the risk of overheating.

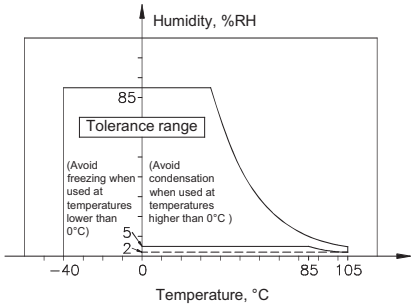
(8) To assure optimum performance, avoid the relay from dropping, hitting, or other unnecessary shocks.

(9) Do not switch the contacts without any load as the contact resistance may become increased rapidly.

(10) Flux tight version is recommended. If there is cleaning process and sealed type is selected, the vent-hole should be removed after the process.

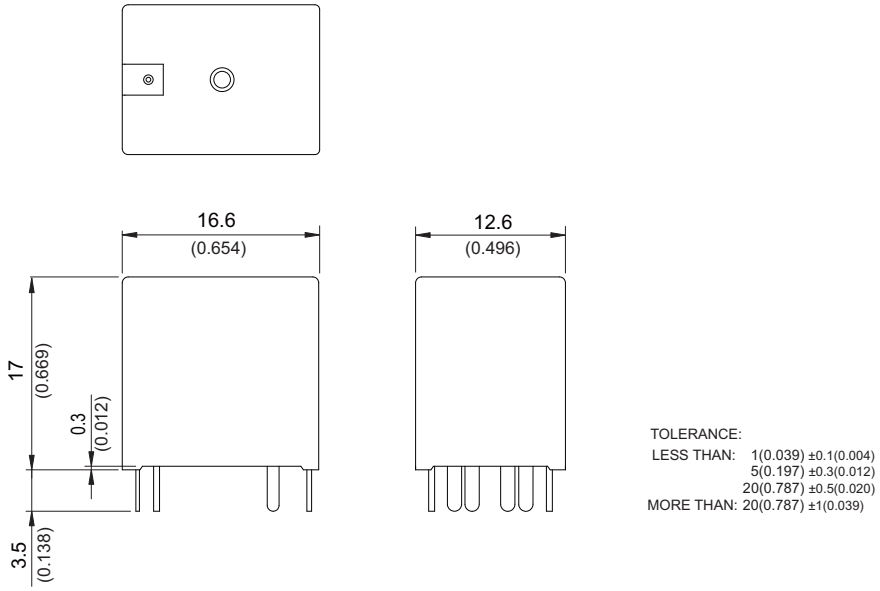
(11) Usage, transport and storage conditions

- 1. Temperature: -40～+105°C
- 2. Humidity: 5 to 85% R.H.
- 3. Pressure: 86 to 106 kPa
- Furthermore, the humidity range varies with the temperature. So, use relays within the range indicated in the graph below.



(12) Please contact Song Chuan for the detailed information.

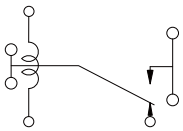
Outline Dimensions



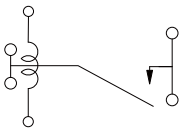
Wiring Diagram

BOTTOM VIEW

1C



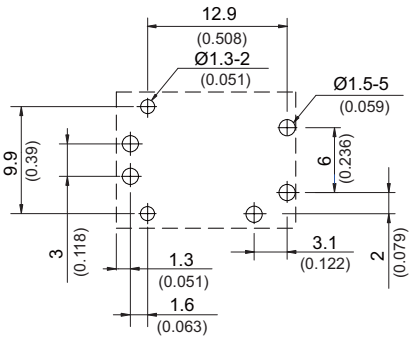
1A



PC Board Layout

BOTTOM VIEW

1C



1A