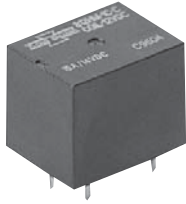


812HM



»» Features

- High performance sugar cube automotive relay.
- Heavy duty suitable for wiper motor control, flashing lamp control, adjustable driver seat motor control, etc.
- Optional for flux-free type or sealed washable type.
- Complies with RoHS-Directive 2011/65/EU, and ELV-Directive 2000/53/EC.

»» Type List

Terminal style	Contact form	Designation (provided with)		
		Flux tight	Sealed type	Sealed type washable
PCB terminal	1A (SPNO)	812HM-1A-C	812HM-1A-V	812HM-1A-S
	1C (SPDT)	812HM-1C-C	812HM-1C-V	812HM-1C-S

»» Ordering Information

812 H M - 1C - C
 1 2 3 4 5 6

- | | |
|---|---|
| <p>1. 812 -- Basic series designation</p> <p>2. H -- High power type</p> <p>3. M -- Automotive relay</p> <p>4. 1A -- Single pole normally open
1C -- Single pole double throw</p> | <p>5. C -- Flux tight
V -- Sealed type
S -- Sealed type washable</p> <p>6. <input type="checkbox"/> -- Coil voltage (please refer to the coil rating data for the availability)</p> |
|---|---|

»» Contact Rating

Resistive load	15A 14VDC
Motor load	Inrush 25A, steady state 5A 14VDC

»» Coil Rating (DC)

Rated voltage (V)	Rated current ±10 % at 23°C (mA)	Coil resistance ±10 % at 23°C (Ω)	Max. continuous voltage at 85°C ⁽¹⁾	Pick up voltage(Max.) at 23°C	Drop out voltage(Min.) at 23°C	Power consumption at rated voltage
9	71.4	126	133 % of rated voltage	65 % of rated voltage	5 % of rated voltage	approx. 0.64W
12	53.3	225		rated voltage	rated voltage	
24	26.7	900		rated voltage	rated voltage	

Note : (1) With continuous contact current 10A.

»» Specification

Contact material	AgSnO alloy	
Contact voltage drop ⁽¹⁾	Typ. 50mV at 10A	
Operate time ⁽¹⁾	15ms Max.	
Release time ⁽¹⁾	10ms Max.	
Insulation resistance ⁽¹⁾	100 MΩ 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)
	Electrical	100,000 ops. (frequency 1,200 ops./hr)
Operating ambient temperature	-40~+85°C (no freezing)	
Weight	Approx. 10 g	

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

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

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

(4) 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.

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

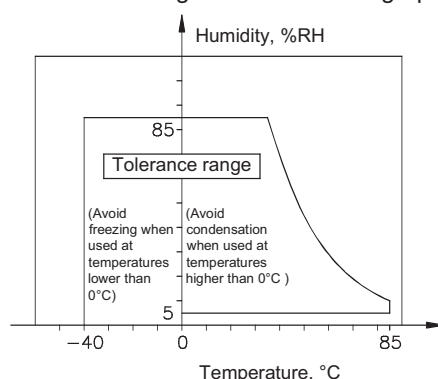
(6) To assure optimum performance, avoid the relay from dropping, hitting, or other unnecessary shocks.

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

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

(9) Usage, transport and storage conditions

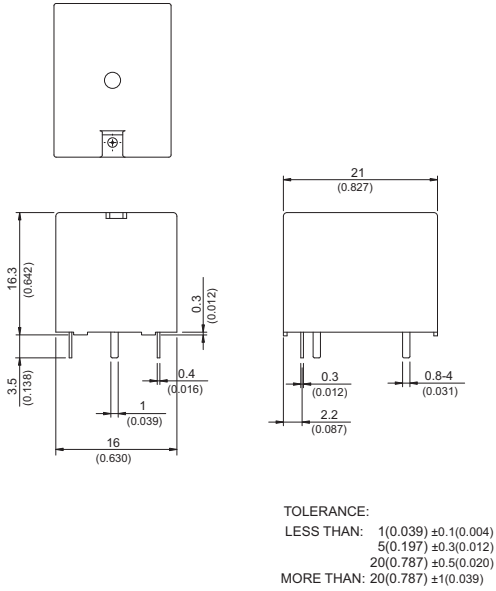
- 1. Temperature: -40~+85°C
- 2. Humidity: 5 to 85% R.H.
- 3. Pressure: 86 to 106 kPa
- Furthermore, the humidity range varies with the temperature. So, use relays within the range indicated in the graph below.



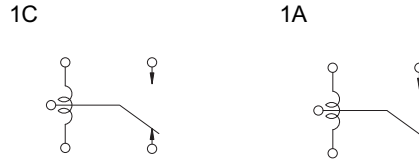
(10) Please contact Song Chuan for the detailed information.

812HM

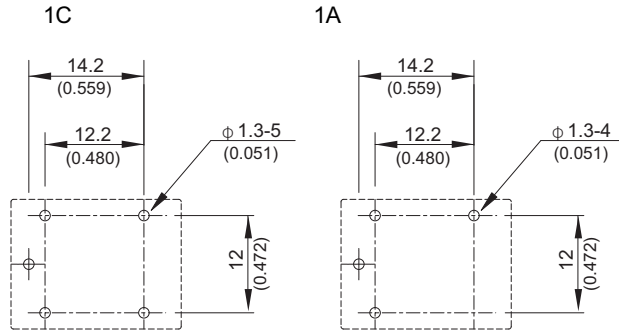
»» Outline Dimensions



»» Wiring Diagram BOTTOM VIEW



»» PC Board Layout BOTTOM VIEW



»» Engineering Data

