Features

- Low cost and compact size miniature PCB relays.
- Special design of high performance for motor control of wiper and sunroof, and window lift control.
- High rating 20A with maximum switching current up to 30A.
- High temperature endurance up to 125°C.
- IR-Reflow process compatible (special version).

Type List

Terminal style	Contact form	Designation (provided with)		
		Flux tight	Sealed type	Sealed type washable
PCB terminal	1A (SPNO)	102-1AH-C	102-1AH-V	102-1AH-S
	1C (SPDT)	102-1CH-C	102-1CH-V	102-1CH-S

Ordering Information

102 - 1A H - C
1 2 3 4

1. 102 -- 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

Contact Rating

Resistive load	NO/NC 20A/10A 14VDC
Motor load	Inrush 30A Steady state 10A 14VDC, 750K ops.
	Motor Lock : 20A 14VDC 200K ops.

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
6	107	56	125 % of rated voltage	60 % of rated voltage	5 % of rated voltage	approx. 0.64W
9	70.8	127				
12	53.3	225				
24	26.7	900				

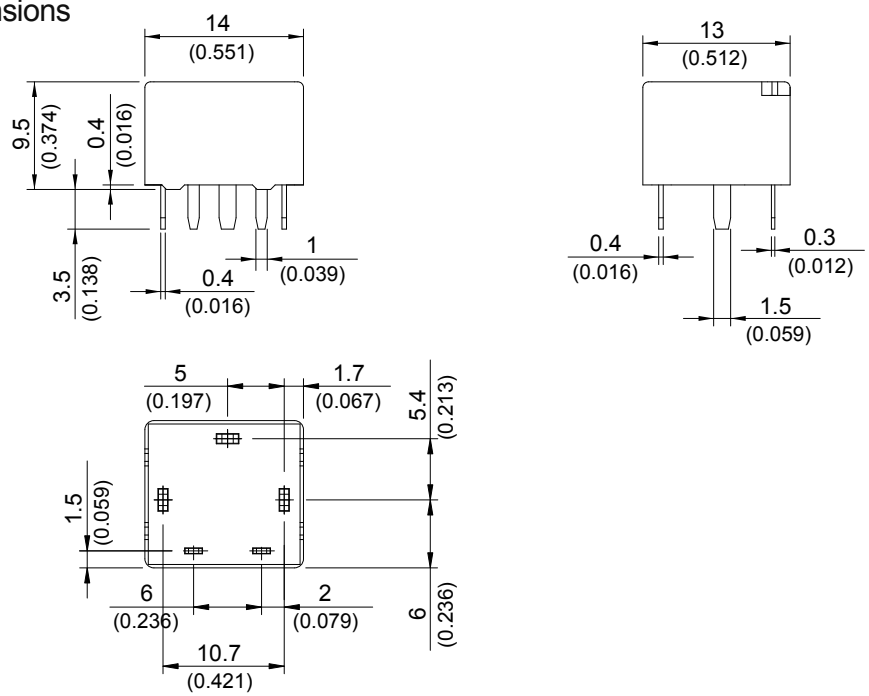
Note:(1)Continuous contact current at 10A.

Specification

Contact material	AgSnO alloy	
Contact voltage drop (1)	Typ. 50mV at 10A	
Operate time(1)	10 ms Max.	
Release time(1)	5 ms 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	10～50Hz , amplitude 1.0 mm
	Damage limits	10～50Hz , amplitude 1.0 mm
Shock resistance	Operating extremes	10G
	Damage limits	100G
Life expectancy	Mechanical	10,000,000 operations (frequency 18,000 operations/hr)
	Electrical	100,000 operations (frequency 360 operations/hr)
Operating ambient temperature	-40～+125°C (no freezing)	
Weight	Approx. 4 g	

Note:(1)Initial value.

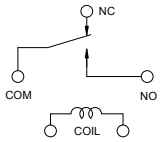
Outline Dimensions



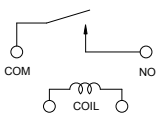
Wiring Diagram

BOTTOM VIEW

1C



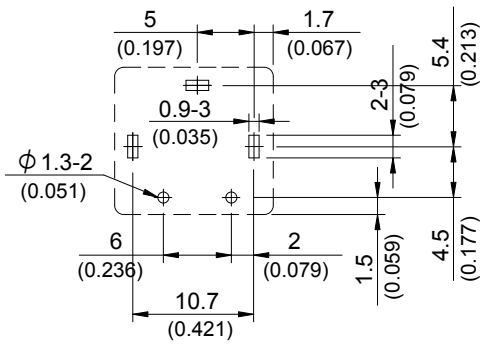
1A



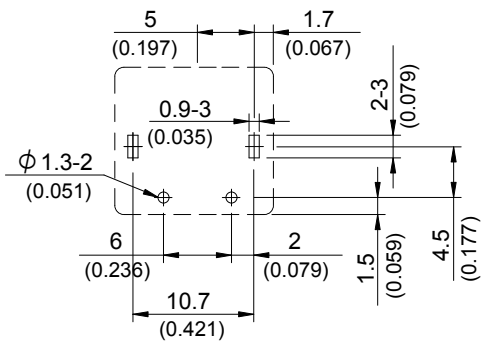
PC Board Layout

BOTTOM VIEW

1C

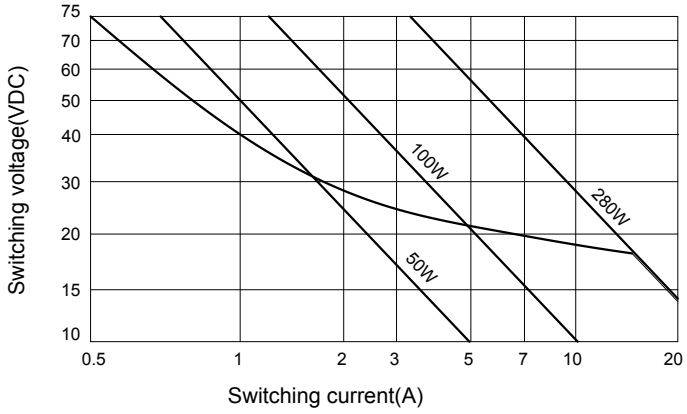


1A

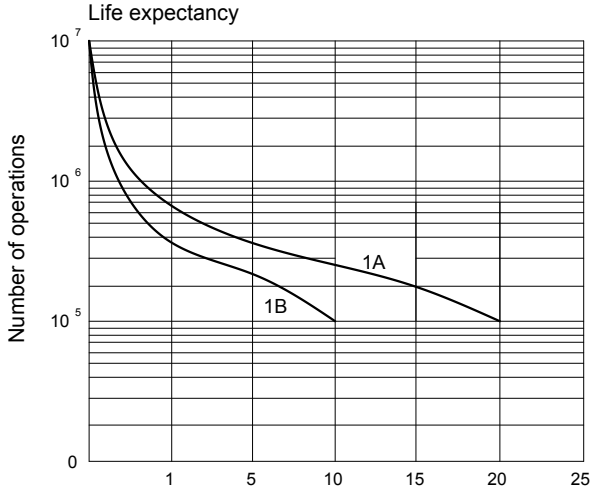


Engineering Data

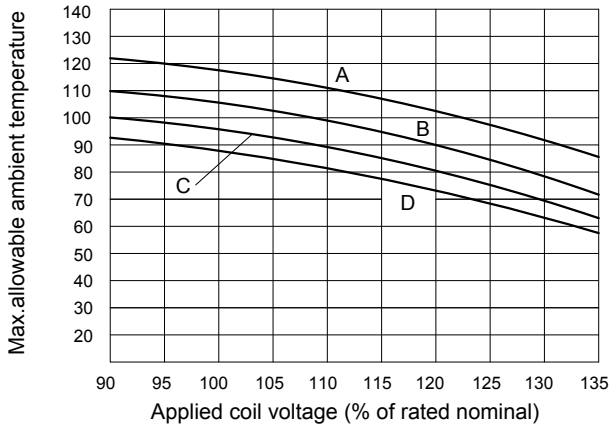
Safe breaking,arc extinguished
(normally open contact) for resistive loads.



Life expectancy



Ambient temperature vs coil voltage for continuous duty



A:5A B:10A C:15A D:20A Contact load(resistive)

Maximum mean coil temperature=155℃

Operate t ime/Release time