



»» Features

- ISO 280 footprint automotive relay.
- High rating up to 35A at 125 degree C.
- Optional to be equipped with diode or resistor.
- General purpose applications for automotive in power control box.
- Comply with RoHS-Directive 2002/95/EC, and ELV-Directive 2000/53/EC.

»» Type List

Terminal style	Contact form	Designation (provided with)	Enclosure style		
			Dust cover	Flux tight	Sealed type washable
Socket terminal	1A (SPNO)	-----	301-1A-D	301-1A-C	301-1A-S
		Resistor	301-1A-D-R1	301-1A-C-R1	301-1A-S-R1
		Diode	301-1A-D-D1	301-1A-C-D1	301-1A-S-D1
	1C (SPDT)	-----	301-1C-D	301-1C-C	301-1C-S
		Resistor	301-1C-D-R1	301-1C-C-R1	301-1C-S-R1
		Diode	301-1C-D-D1	301-1C-C-D1	301-1C-S-D1

»» Ordering Information

301 - 1A - D -
 1 2 3 4

- | | |
|---|---|
| <p>1. 301 -- Basic series designation</p> <p>2. 1A -- Single pole normally open
 1C -- Single pole double throw</p> <p>3. D -- Dust cover
 C -- Flux tight
 S -- Sealed type washable</p> | <p>4. Blank -- Standard type</p> <p>R1 -- Coil parallel with 1/2W resistor for
 6V 180Ω, 12V 680Ω, 24V 2700Ω</p> <p>D1 -- Coil parallel with diode IN4007 the
 positive pole on # 85 terminal</p> |
|---|---|

»» Contact Rating

Resistive load	1A	1C
	35A 14VDC 15A 28VDC	NO: 35A 14VDC, 15A 28VDC NC: 20A 14VDC, 10A 28VDC

»» 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	Pick up voltage(Max) at 23°C	Drop out voltage(Min) at 23°C	Power consumption at rated voltage
6	187.5	32	133 % of rated voltage	60 % of rated voltage	10 % of rated voltage	approx. 1.2W
12	97.5	123				
24	49.6	483				

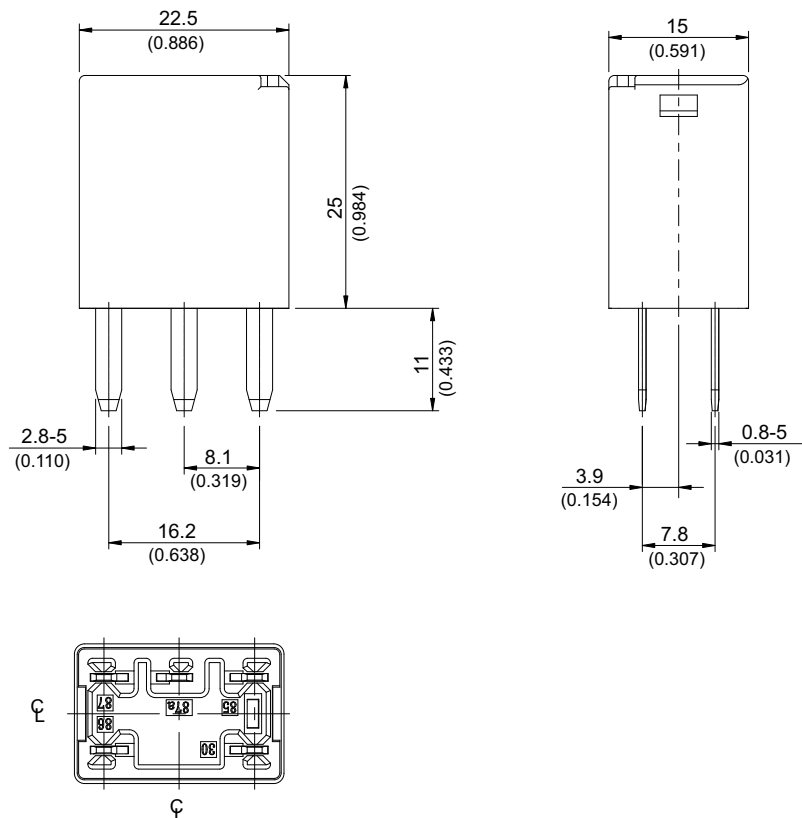
301

»» Specification

Contact material	AgSnO alloy	
Contact voltage drop ⁽¹⁾	Typ. 40mV at 10A	
Operate time ⁽¹⁾	10ms Max.	
Release time ⁽¹⁾	10ms Max.	
Insulation resistance ⁽¹⁾	20MΩ 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 , 5.0G
	Damage limits	10~500Hz , 5.0G
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 1,800 operations/hr)
Temperature range	Storage	-40~+155°C (no freezing)
	Operating	-40~+125°C (no freezing)
Weight	Approx. 20 g	

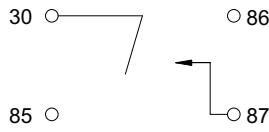
Note:(1)Initial value

»» Outline Dimensions

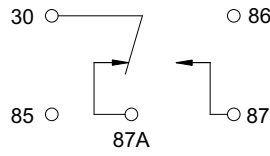


»» Wiring Diagram BOTTOM VIEW

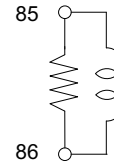
1A



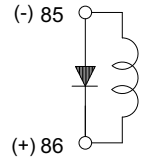
1C



R1

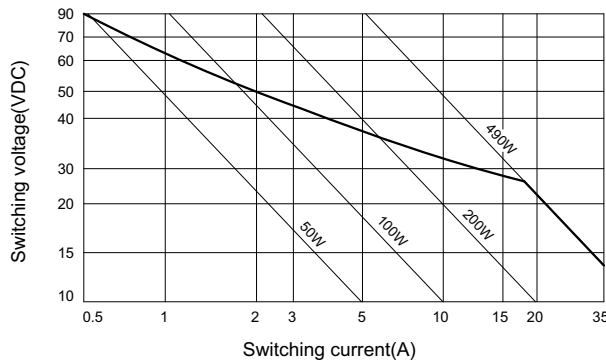


D1

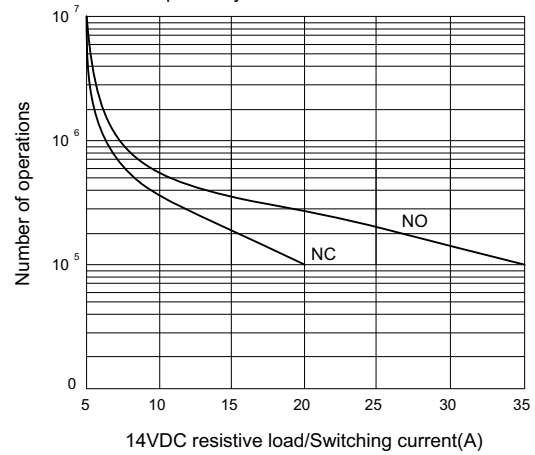


»» Engineering Data

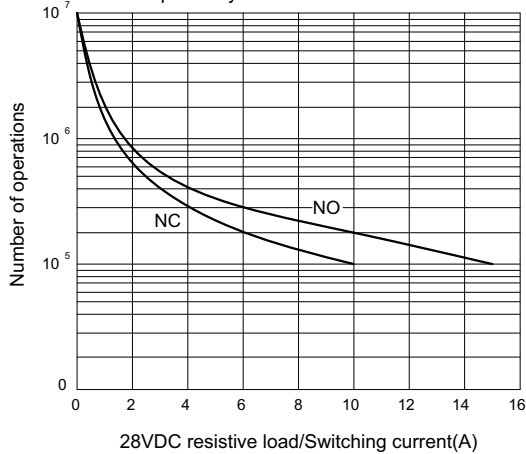
Safe breaking, arc extinguished
(normally open contact) for resistive loads.



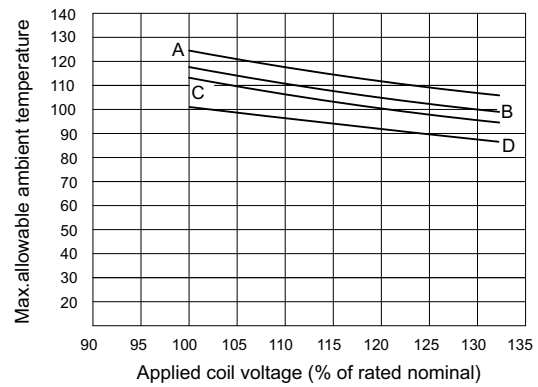
Life expectancy



Life expectancy



Ambient temperature vs coil voltage for continuous duty



A: 15A B: 20A C: 25A D: 35A Contact load (resistive)

Maximum mean coil temperature = 155°C

Operate time/Release time

