



»» Features

- Low cost automotive relay with ISO 280 footprint.
- 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.

»» 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 ⁽¹⁾ | 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 ⁽¹⁾ | 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 |

Note : (1) 6VDC COIL: 180 Ω Resistor in parallel
 12VDC COIL: 680 Ω Resistor in parallel
 24VDC COIL: 2700 Ω Resistor in parallel

»» Ordering Information

301 - 1A - D - R1
 1 2 3 4

1. 301 -- Basic series designation
2. 1A -- Single pole normally open
 1C -- Single pole double throw
3. D -- Dust cover
 C -- Flux tight
 S -- Sealed type washable
4. Blank-- Standard type
 R1 -- Coil parallel with resistor 6VDC-180 Ω、12VDC-680Ω、24VDC-2700Ω
 D1 -- Coil parallel with diode

»» Contact Rating

| Resistive load | 1A | 1C |
|----------------|-----------|----------------------------------|
| | 35A 14VDC | NO : 35A 14VDC NC : 20A 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 | 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 | | rated voltage | rated voltage | |
| 24 | 49.6 | 483 | | rated voltage | rated voltage | |

»» 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



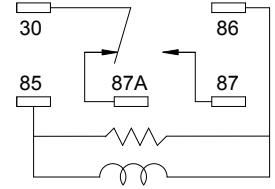
1C



1A (R1)



1C (R1)

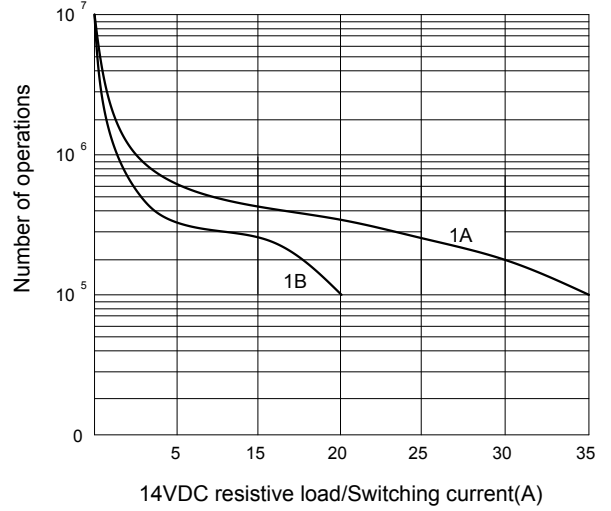


»» Engineering Data

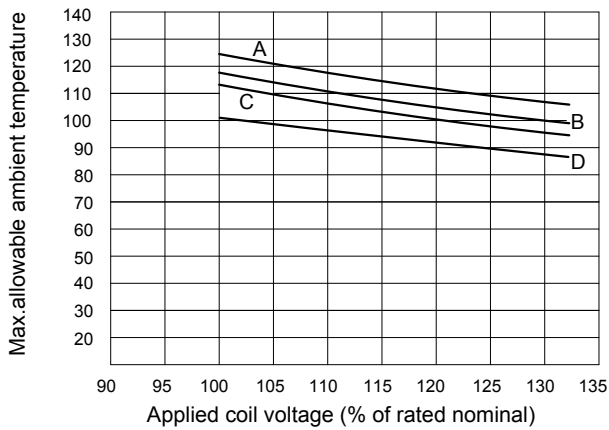
Safe breaking, arc extinguished
(normally open contact) for resistive loads.



Life expectancy



Ambient temperature vs coil voltage for continuous duty



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

Maximum mean coil temperature=155°C

Operate time/Release time

