



»» Features

- Micro 280 automotive relay.
- SPNO & SPDT contact configurations.
- NO contacts switch 35A resistive load, NC contacts switch 20A resistive load, 100,000 ops., 23°C.
- Operating ambient temperature -40°C to 125°C.
- Optional resistor or diode for coil transient suppression.
- Complies with RoHS-Directive 2011/65/EU 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 5

- | | |
|--|--|
| 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 1/2W resistor for 6V 180Ω, 12V 680Ω, 24V 2700Ω D1 -- Coil parallel with diode 1N4007 the diode anode on # 85 terminal 5. <input type="checkbox"/> -- Coil voltage (please refer to the coil rating data for the availability) |
|--|--|

»» 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 | Rated current ±10 % at 23°C | | Coil resistance ±10 % at 23°C | | 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 | |
|---------------|-----------------------------|---------------|-------------------------------|---------------|--|--------------------------------|---------------------------------|------------------------------------|---------------|
| | without resistor | with resistor | without resistor | with resistor | | | | without resistor | with resistor |
| 6V | 188 mA | 222 mA | 32 Ω | 27 Ω | 133 % of rated voltage | 60 % of rated voltage | 10 % of rated voltage | approx. 1.2W | approx. 1.4W |
| 12V | 98 mA | 115 mA | 123 Ω | 104 Ω | | | | | |
| 24V | 50 mA | 59 mA | 483 Ω | 410 Ω | | | | | |

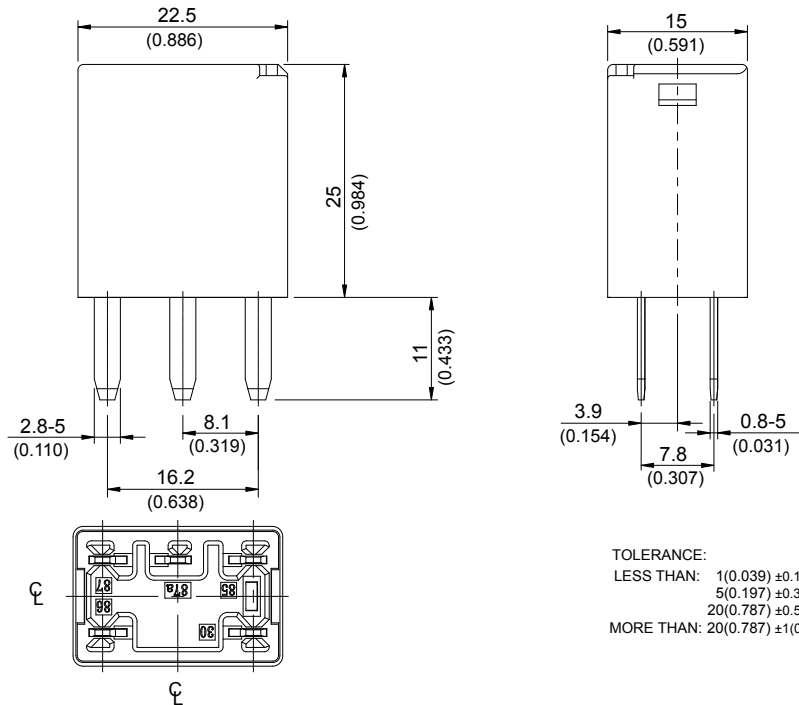
Note : (1) With continuous contact current 15A.

»» 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 ops. (frequency 18,000 ops./hr.) |
| | Electrical | 100,000 ops. (frequency 1,800 ops./hr.) |
| Operating ambient temperature | -40~+125°C (no freezing) | |
| Weight | Approx. 20 g | |

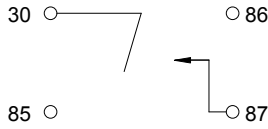
Note : (1) Initial value. Operate and release time excluding contact bounce.

»» Outline Dimensions

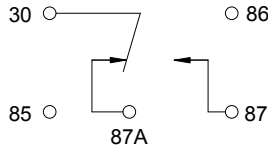


»» Wiring Diagram BOTTOM VIEW

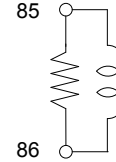
1A



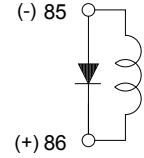
1C



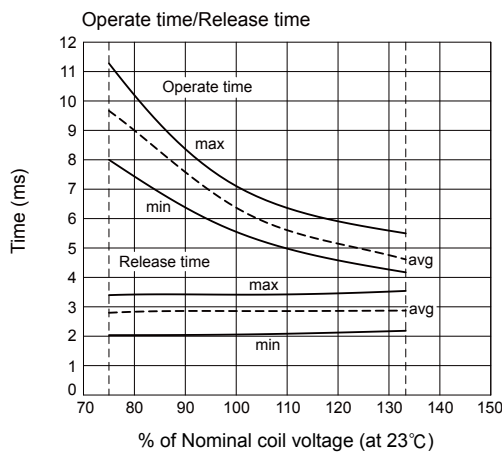
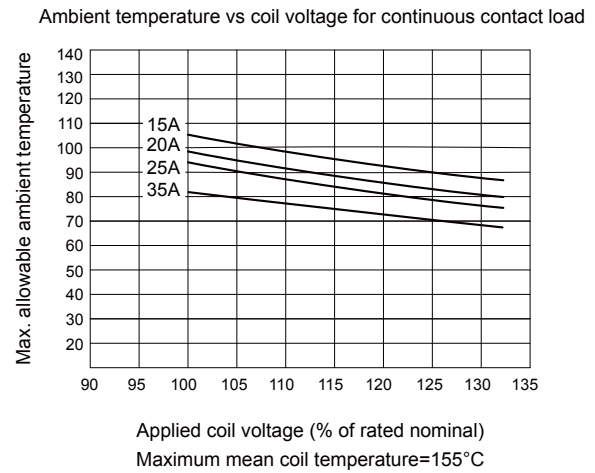
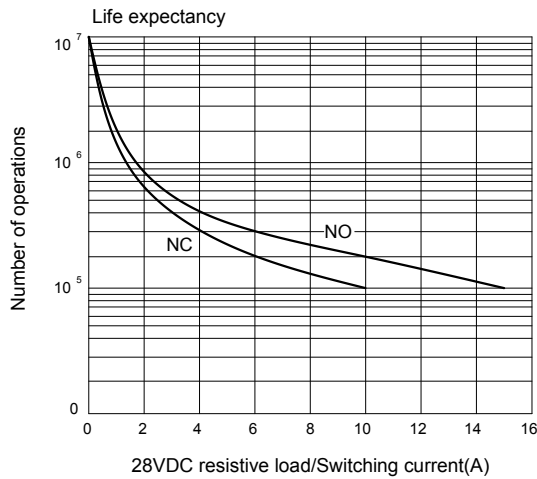
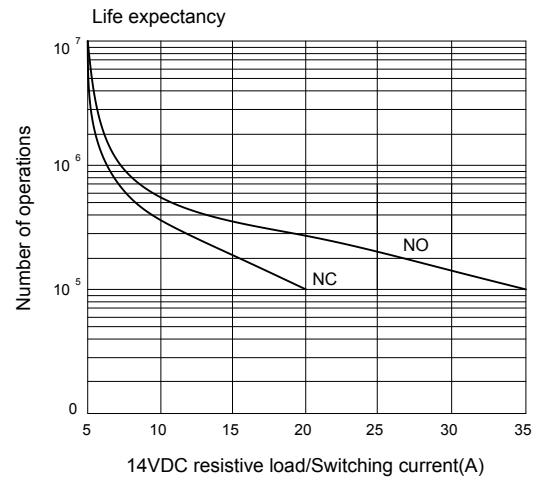
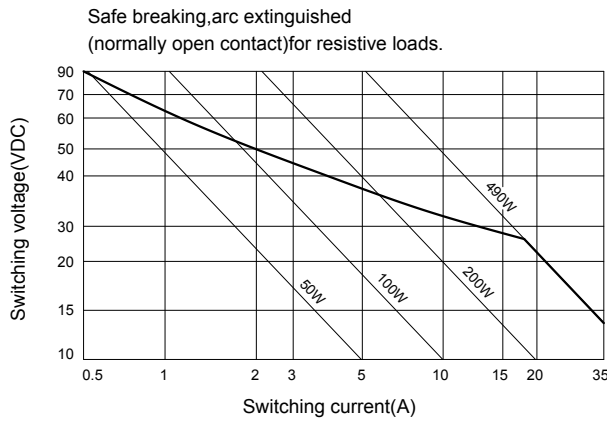
R1



D1



»» Engineering Data



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Click below to explore more details on WIN SOURCE:

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