



### »» Features

- Ultra Micro ISO Automotive relay.
- High Rating up to 20A.
- High Temperature withstand up to 125°C ambient.
- General Purpose for Automotive applications.
- Comply with RoHS-Directive 2002/95/EC, and ELV-Directive 2000/53/EC.

### »» Type List

Terminal style	Contact form	Designation (provided with)	Enclosure style	
			Flux tight	Sealed type washable
Socket terminal	1A (SPNO)	-----	303-1AH-C	303-1AH-S
		Resistor	303-1AH-C-R1	303-1AH-S-R1
		Diode	303-1AH-C-D1	303-1AH-S-D1

### »» Ordering Information

303 - 1A H - C - R1  
 1 2 3 4 5

- |   |  |
|---|--|
| 1. 303 -- Basic series designation<br>2. 1A -- Single pole normally open<br>3. H -- Contact material AgSnO<br>4. C -- Flux tight<br>S -- Sealed type washable | 5. Blank -- Standard type<br>R1 -- Coil parallel with 1/2W resistor for 12V 1.1KΩ, 24V 4.3KΩ<br>D1 -- Coil parallel with diode IN4007 the positive pole on # 85 terminal |
|---|--|

### »» Contact Rating

Resistive	20A 14VDC, 10A 28VDC, 100K ops.
Motor	16A 14VDC Inrush 80A ; ON 2s / OFF 5s, -30~+80°C, 300K ops.
Lamp	16A 14VDC Inrush 80A ; ON 3s / OFF 3s, -30~+100°C, 100K ops.

### »» Coil Rating (DC)

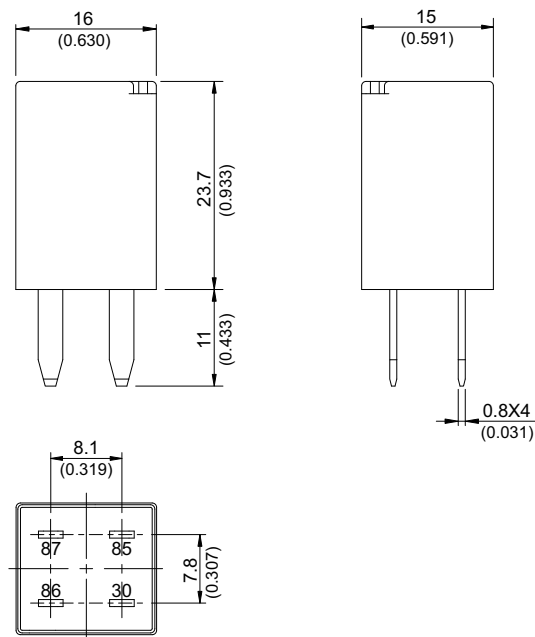
Rated Voltage (V)	Rated current ±10 % at 23° C (mA)	Coil resistance ±10 % at 23° C (Ω)	Max continuous voltage at 85° C	Pick up voltage(Max) at 23° C	Drop out voltage(Min) at 23° C	Power consumption at rated voltage
12	80	150	133 % of rated voltage	60 % of rated voltage	8 % of rated voltage	approx. 0.96W
24	40	600				

## »» Specification

Contact material	AgSnO alloy	
Contact voltage drop <sup>(1)</sup>	Typ. 50mV at 10A	
Operate time <sup>(1)</sup>	10 ms Max.	
Release time <sup>(1)</sup>	10 ms Max.	
Insulation resistance <sup>(1)</sup>	20 MΩ Min. (DC 500V)	
Dielectric strength <sup>(1)</sup>	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)
Operating ambient temperature	-40 ~ +125°C (no freezing)	
Weight	Approx. 20 g	

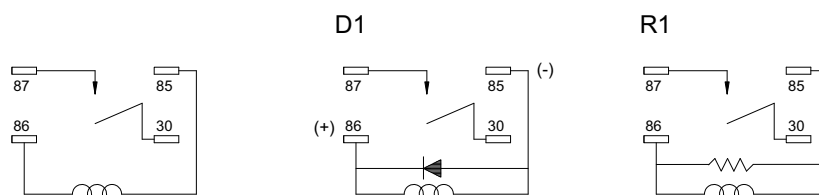
Note : (1) initial value

## »» Outline Dimensions

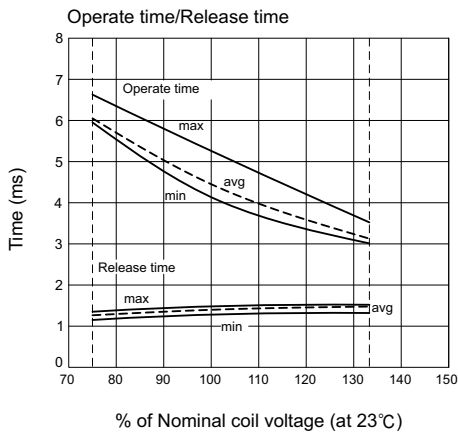
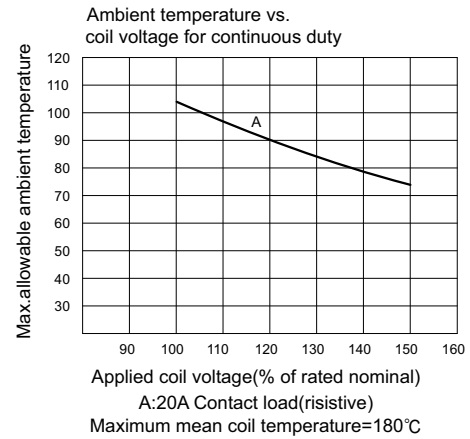
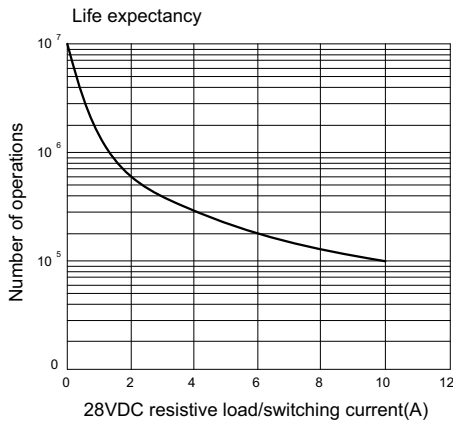
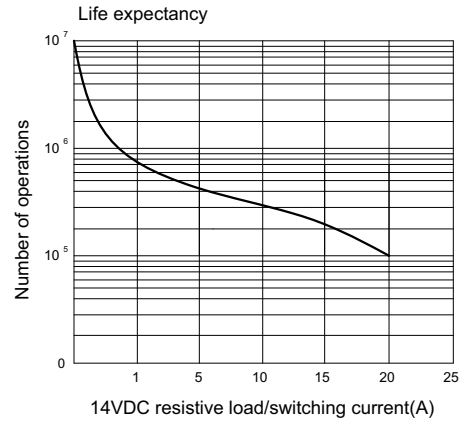
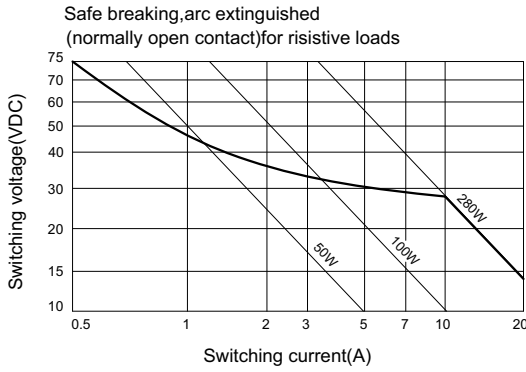


## »» Wiring Diagram

BOTTOM VIEW



»» Engineering Data



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