



»» 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
2. 1A -- Single pole normally open
3. H -- Contact material AgSnO
4. C -- Flux tight
S -- Sealed type washable | 5. Blank -- Standard type
R1 -- Coil parallel with 1/2W resistor for 12V 1.1KΩ, 24V 4.3KΩ
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)

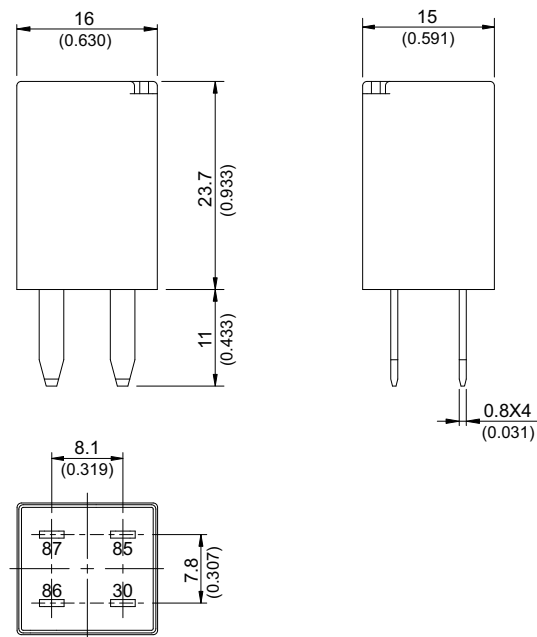
Rated Voltage (V)	Rated current ±10 % at 23° C (mA)	Coil resistance ±10 % at 23° C (Ω)	Max continuous voltage at 85° C	Pick up voltage(Max) at 23° C	Drop out voltage(Min) at 23° C	Power consumption at rated voltage
12	80	150	133 % of rated voltage	60 % of rated voltage	8 % of rated voltage	approx. 0.96W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

»» Specification

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

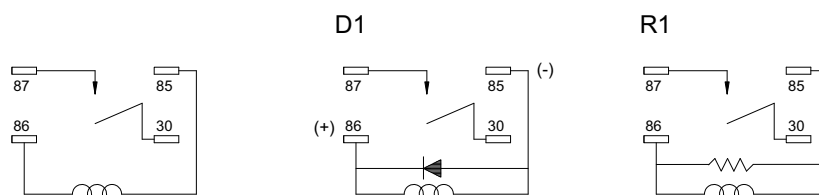
Note : (1) initial value

»» Outline Dimensions

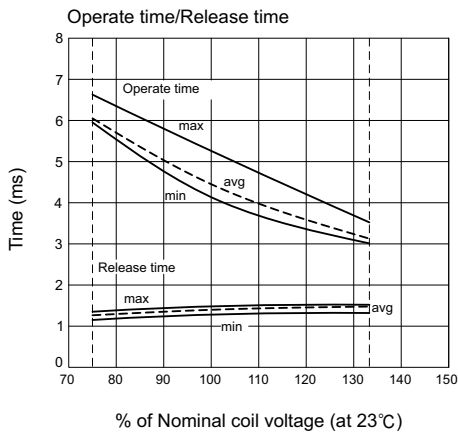
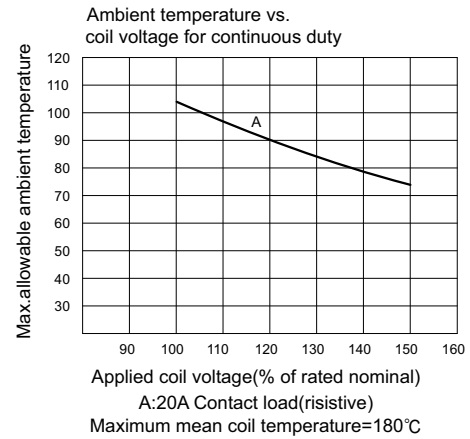
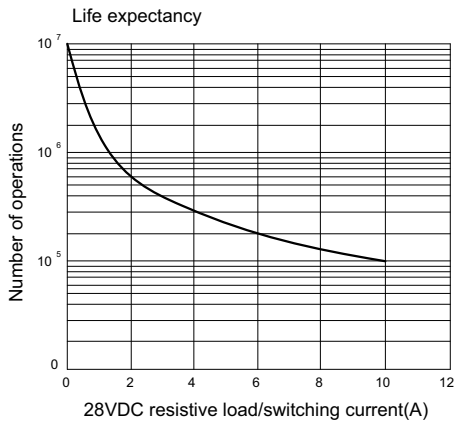
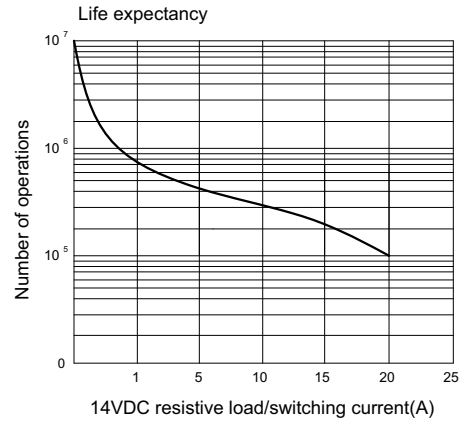
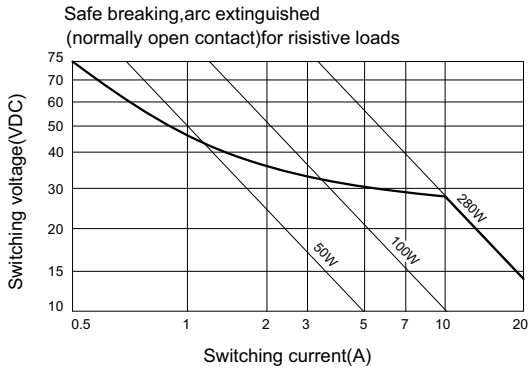


»» Wiring Diagram

BOTTOM VIEW



»» Engineering Data



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