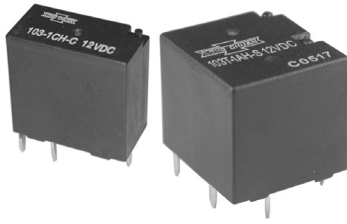




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»» Features

- Smallest and slim type PCB Automotive relay.
- High rating 20A with maximum switching current up to 30A.
- High Temperature withstand up to 125°C.
- Single or twin relays are both available.
- IR-Reflow process compatible (special version).
- Comply with RoHS-Directive 2011/65/EU, and ELV-Directive 2000/53/EC.

»» Type List

Terminal style	Contact form	Designation (provided with)	
		Flux tight	Sealed type washable
PCB terminal	1A (SPNO)	103-1AH-C	103-1AH-S
		103T-1AH-C	103T-1AH-S
	1C (SPDT)	103-1CH-C	103-1CH-S
		103T-1CH-C	103T-1CH-S

»» Ordering Information

103 T - 1A H - C
 1 2 3 4 5

- | | |
|--|---|
| 1. 103 -- Basic series designation | 4. H -- Contact material AgSnO |
| 2. Blank -- Single relay
T -- Twin relay | 5. C -- Flux tight
S -- Sealed type washable |
| 3. 1A -- Single pole normally open
1C -- Single pole double throw | |

»» Contact Rating

Resistive load	NO/NC 20A/10A 14VDC
Motor load	Inrush 30A Steady state 10A 14VDC,750K ops.
	Motor Lock : 20A14VDC 200K 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
6	107	56	125 % of rated voltage	60 % of rated voltage	5 % of rated voltage	approx. 0.64W
9	70.8	127				
12	53.3	225				
24	26.7	900				

»» Specification

Contact material	AgSnO alloy	
Contact voltage drop ⁽¹⁾	Typ. 50mV at 10A	
Operate time ⁽¹⁾	10 ms Max.	
Release time ⁽¹⁾	5 ms Max.	
Insulation resistance ⁽¹⁾	100 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 4.4G
	Damage limits	10~500Hz 4.4G
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 360 operations/hr)
Operating ambient temperature	-40~+125°C (no freezing)	
Weight	Approx. 4 g	

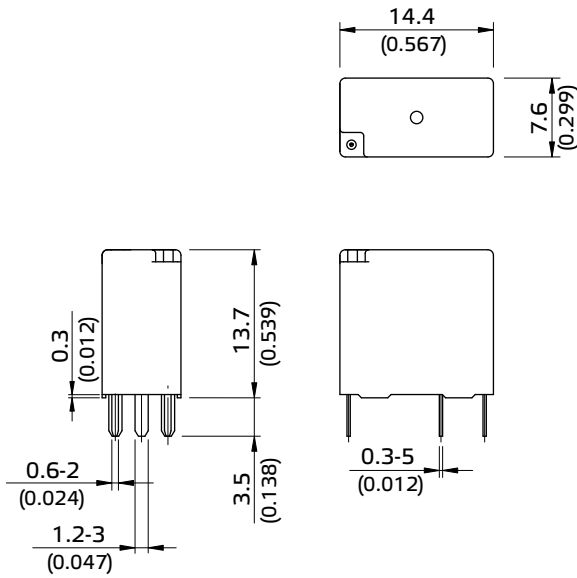
Note : (1) initial value. Operate and release time excluding contact bounce.



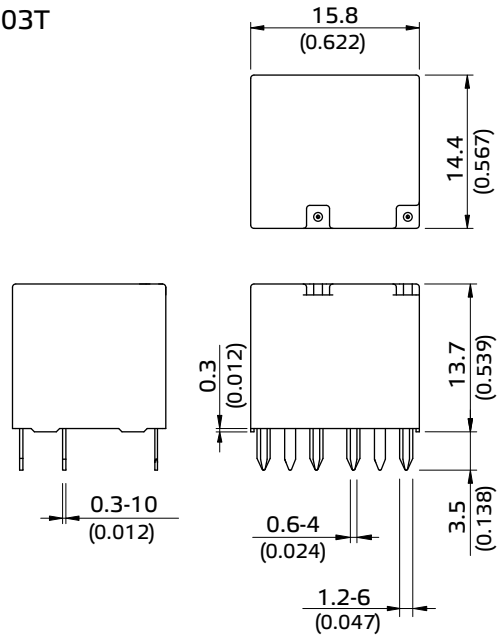
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»» Outline Dimensions

◆103



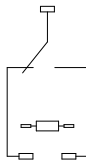
◆103T



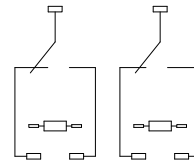
»» Wiring Diagram

BOTTOM VIEW

◆103



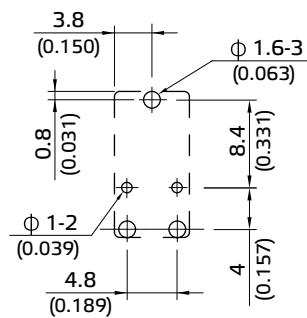
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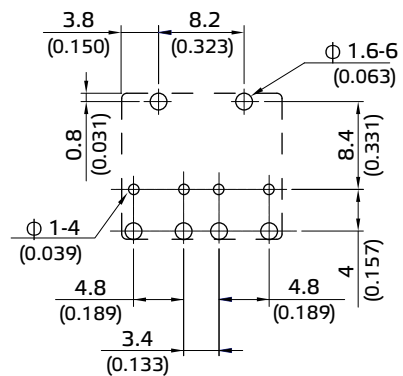
»» PC Board Layout

BOTTOM VIEW

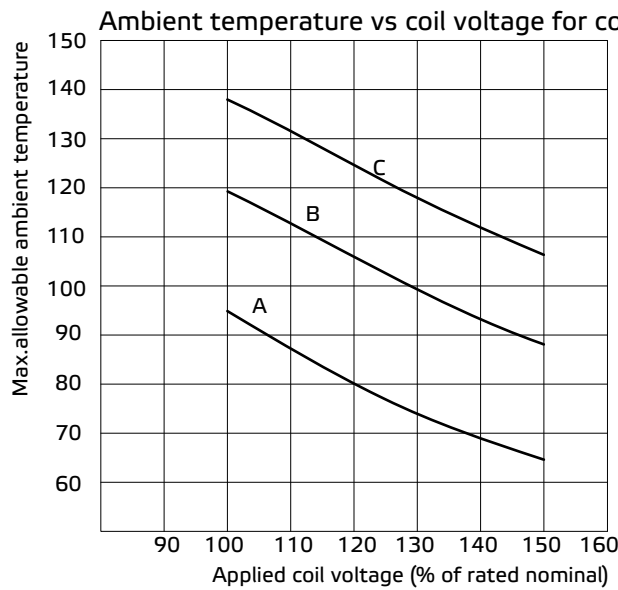
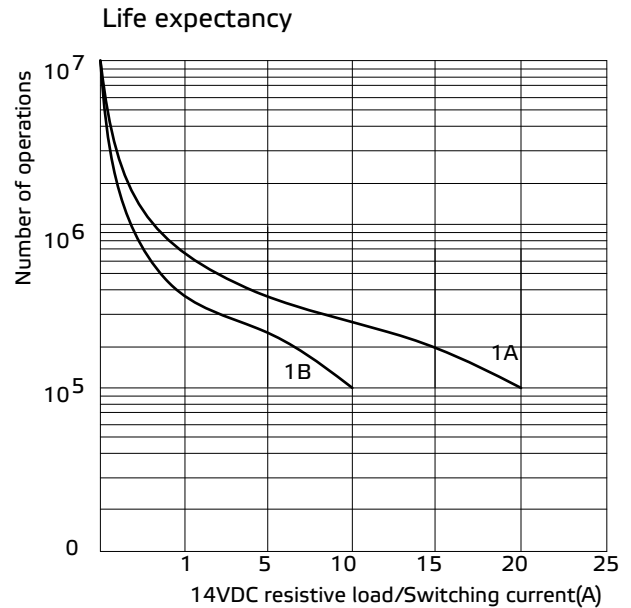
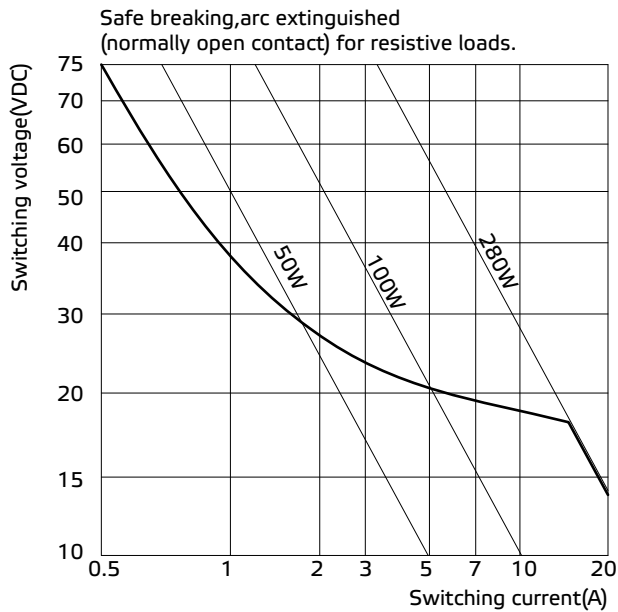
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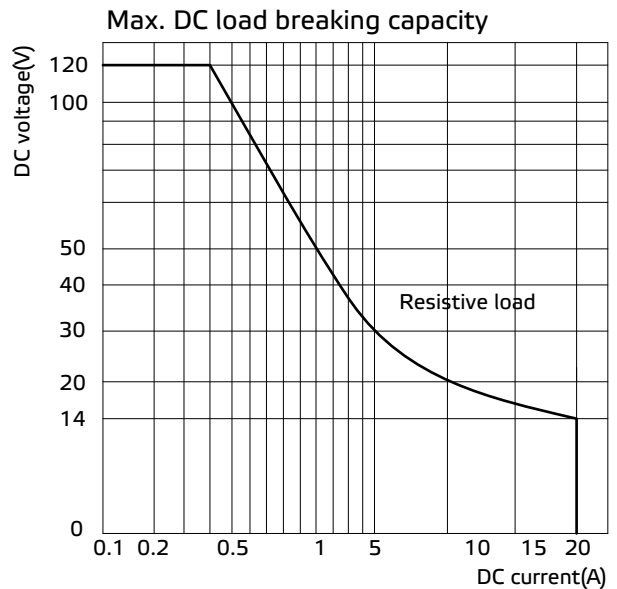
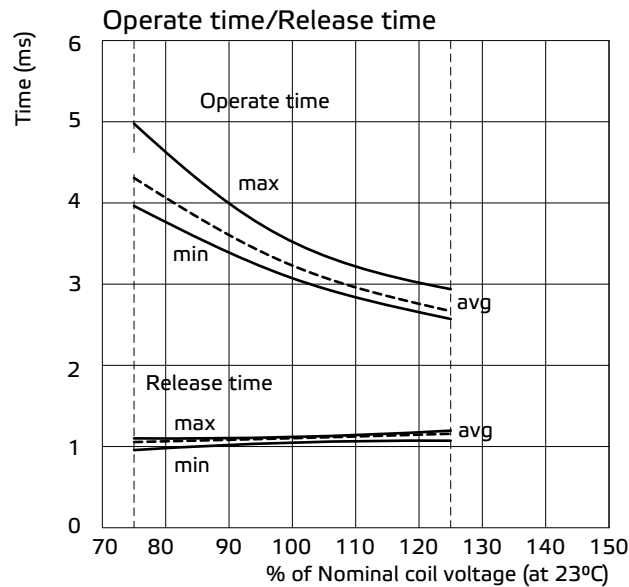
◆103T



»» Engineering Data



A:20A B:15A C:10A Contact load(resistive)
Maximum mean coil temperature=180°C



Disclaimer

All technical performance data apply to the relay as such, specific conditions of the individual application are not considered. Please always check the suitability of the relay for your intended purpose. We do not assume any responsibility or liability for not complying herewith. We recommend to complete our questionnaire and to request our technical service. Any responsibility for the application of the product remains with the customer only. All specifications are subject to change without notification. All rights of Song Chuan are reserved.