

**TRS**

- 30A 13.5VDC switching rating
- 40A inrush at 13.5VDC
- Smallest power relay
- 1 Form A and 1 FormC arrangements in single and dual relay packages
- For Automotive Applications
- Conform to RoHS,ELV directive



13.2×12×9.8

**ORDERING CODE**

TRS	D	S	H	/ 12VDC
1	2	3	4	5
1. Relay Model			4.	
2. Coil Power			H: Form A	
L: 0.57W			Z: Form C	
D:0.8W			5. Coil Nominal Voltage	
3. S: Sealed			6,12,24VDC	
Nil: Vented(Flux-tight)				

**COIL DATA** at 20°C)

Nominal Voltage (VDC)	6	12	24	0.57W
Coil Resistance ( $\Omega \pm 10\%$ )	63	254	1010	
Rated Current (mA)	95	47.5	23.7	
Max Operate Voltage (VDC)	3.45	6.9	13.8	
Min Release Voltage (VDC)	0.6	1.2	2.4	
Coil Resistance ( $\Omega \pm 10\%$ )	45	180	720	0.8W
Rated Current (mA)	133.3	66.7	33.3	
Max Operate Voltage (VDC)	3.45	6.9	13.8	
Min Release Voltage (VDC)	0.6	1.2	2.4	
Max Applicable Voltage	70°C	130%, 23°C	170%	

**CONTACT DATA**

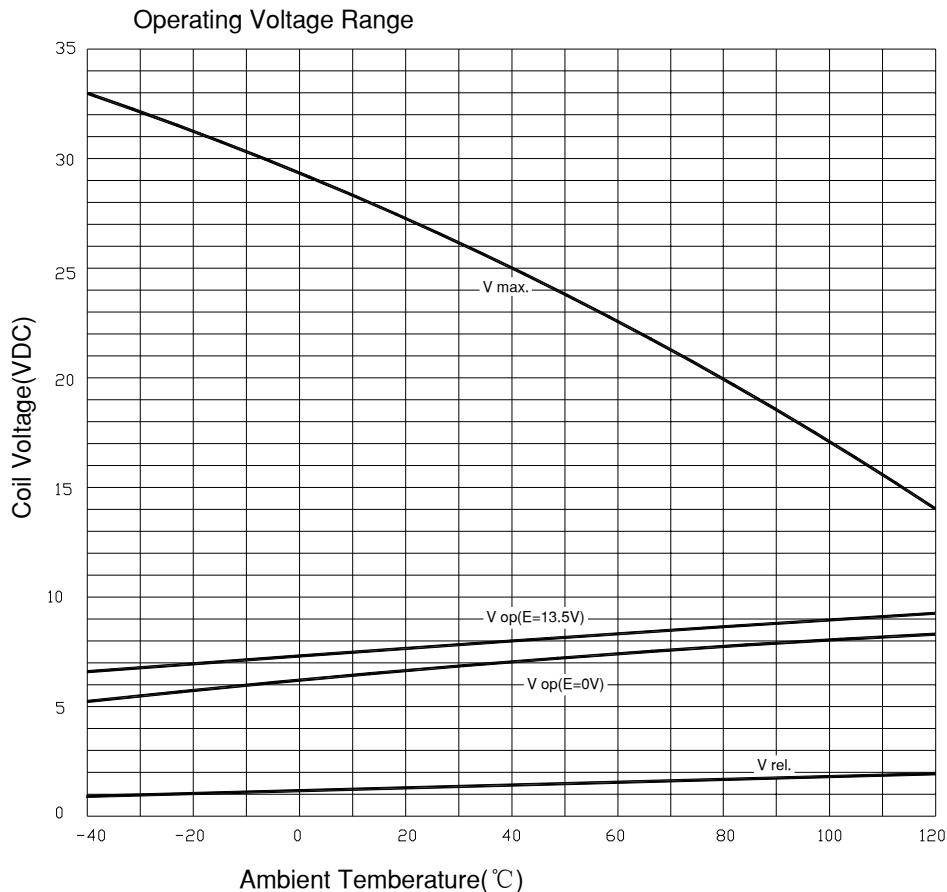
Contact Ratings	Load Type	(A)		Frequency ops/min	Duty Cycle	(次) Life Expectancy
		NO	NC			
	Resistive Load	20	---	15	0.5	$3 \times 10^5$
	Wiper reserve L=1.0mH	Make	25	15	0.5	$3 \times 10^5$
		Break	5			
	Motor reserve blocked L=0.77mH	20A Inrush		15	0.5	$1 \times 10^5$
	Flasher Load	$3 \times 21W$	---	80	0.5	$2 \times 10^6$
	Lamp	Inrush	100	6	1/6	$1 \times 10^5$
		Steady state	10			

Contact Form	1H/1Z
Contact Material	Silver Alloy
Load	Resistive load(COS $\Phi$ =1) Cut 13.5VDC
Minimum load	0.5A 12VDC
Max Switching Current	40A
Max Switching Power	420W
Contact Resistance	100m $\Omega$ Max at 6VDC 1A
Electrical Life Expectancy	See "Contact Data" Table
Mechanical	10, 000, 000 Operations(at300Operations/minute)

### ■ CHARACTERISTICS DATA

Insulation Resistance	100M $\Omega$ Min at 500VDC
Dielectric Strength Between Open Contacts	500VAC(for one minute)
Between Contacts and coil	500VAC(for one minute)
Operate Time	4ms
Release Time	2ms
Temperature Range	-40 $^{\circ}$ C to +105 $^{\circ}$ C
Shock Resistance	6 msec up to 30g (No change in the switching state > 10 $\mu$ sec)
Vibration Resistance	10-500Hz, 6g (No change in the switching state > 10 $\mu$ sec)
Max. switching frequency	Mechanical: 18,000operations/hr
Humidity	20-50%
Weight	Approx 4g

### ■ ENGINEERING DATA



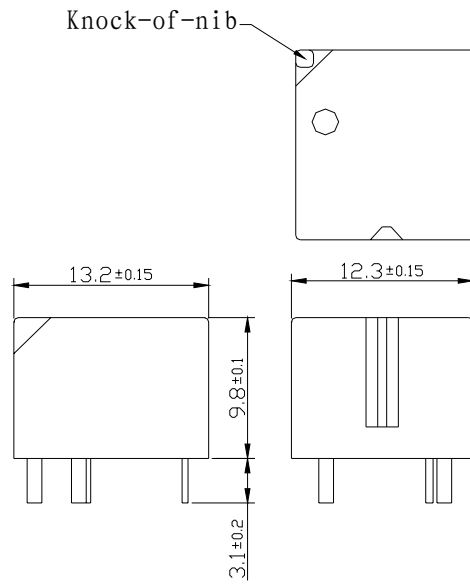
Does not take into account the temperature rise due to the contact current

V op=Operation voltage

E=Pre-Generation

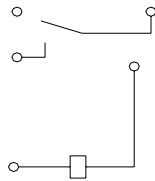
## OVERALL AND MOUNTING DIMENSIONS

### Outline Dimensions-Single Relay

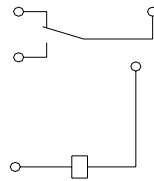


### Wiring Diagrams-Single Relay(Bottom Views)

1 Form A



1 Form C



### Suggested PC Board Layout-Single Relay(Bottom View)

