

Automotive Relay

TRS

- 30A 16VDC switching rating
- 40A inrush at 16VDC
- Smallest power relay
- 1 Form A and 1 Form C arrangements in single and dual relay packages
- For Automotive Applications
- Conform to ROHS,ELV directive



13.2×12×9.8

ORDERING CODE

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

COIL DATA at 20°C Rated Current(mA)

| Nominal Voltage (VDC) | Coil Resistance ($\Omega \pm 10\%$) | Max Operate Voltage (VDC) | Min Release Voltage (VDC) | Coil Power CW) | Max Applicable Voltage | |
|--------------------------|--|------------------------------|------------------------------|-------------------|------------------------|----------|
| | | | | | At 23°C | At 105°C |
| 6 | 63 | 3.5 | 0.6 | 0.57W | 13 | 8 |
| 12 | 253 | 6.9 | 1.2 | 0.57W | 26 | 16 |
| 24 | 1016 | 13.8 | 2.4 | 0.57W | 52 | 32 |
| 6 | 45 | 3.5 | 0.6 | 0.8W | 11 | 7 |
| 12 | 180 | 6.9 | 1.2 | 0.8W | 22 | 13.5 |
| 24 | 720 | 13.8 | 2.4 | 0.8W | 44 | 27 |

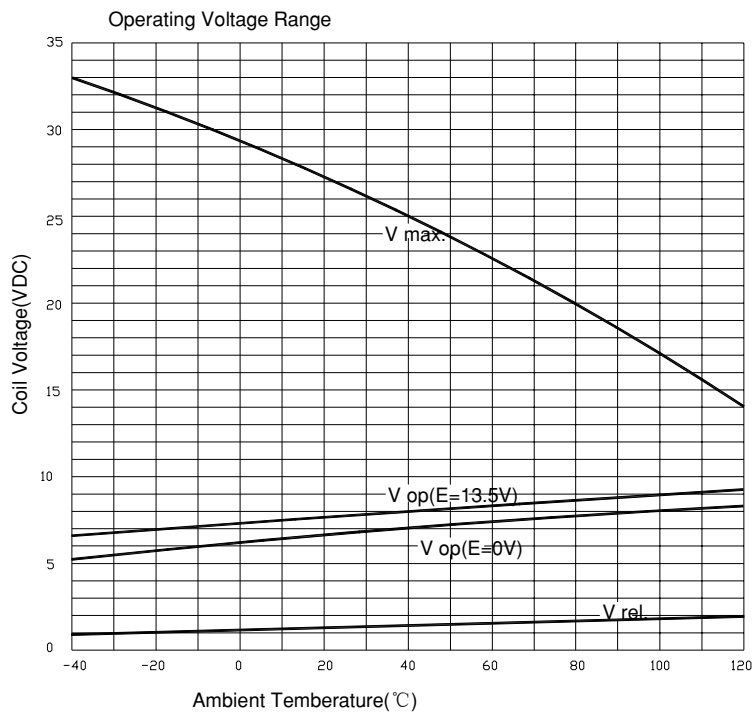
CONTACT DATA

| | | | |
|--|--|---------------|------------|
| Contact Form | 1H(From 1A)/1Z(From 1C) | | |
| Contact Material: | Silver Alloy | | |
| Max Load Current (@14VDC Voltage) | | | |
| | From A (NO) | FROM C | |
| | | NO | NC |
| Max Continuous Current | 30A | 30A | 25A |
| Max Break Current | 30A | 30A | 25A |
| Max Make Current AgSnO | 100A | 100A | 15A |
| Over Load Current: | 50A 5sec; 87.5A 0.5sec; 150A 0.1sec | | |
| Max Switching Power: | 420W | | |
| Minimum load: | 0.5A 12VDC | | |
| Contact Resistance: | 100m Ω Max at 6VDC 1A | | |
| Expected Electrical life: | 100,000 Operations at 20Amps 14VDC resistive load on normally open contact | | |
| Expected Mechanical life: | 10,000,000 Operations | | |

■ GENERAL DATA

| | |
|---------------------------|---|
| Insulation Resistance | 100M Ω Min at 500VDC |
| Between Contacts and coil | 500VAC(for one minute) |
| Operate Time | 4ms |
| Release Time | 2ms |
| Temperature Range | -40°C to +105°C |
| Shock Resistance | 6 msec up to 30g (No change in the switching state > 10 μ sec) |
| Vibration Resistance | 10-500Hz, 6g (No change in the switching state > 10 μ sec) |
| Max. switching frequency | Mechanical: 18,000 operations/hr Electrical: 1,800 operations/hr |
| Humidity | 20-50% |
| Weight | Approx 4g |

■ ENGINEERING DATA



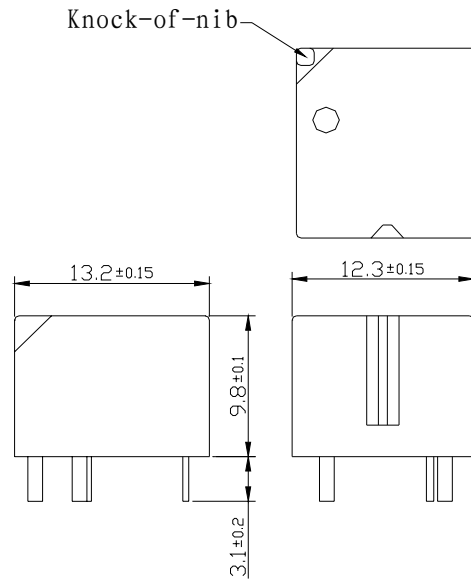
Does not take into account the temperature rise due to the contact current

V op=Operation voltage

E=Pre-Generation

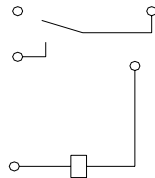
OVERALL AND MOUNTING DIMENSIONS

Outline Dimensions-Single Relay

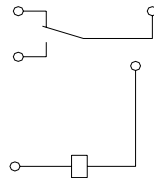


Wiring Diagrams-Single Relay(Bottom Views)

1 Form A



1 Form C



Suggested PC Board Layout-Single Relay(Bottom View)

