



# TRC

## ■ MAIN FEATURES

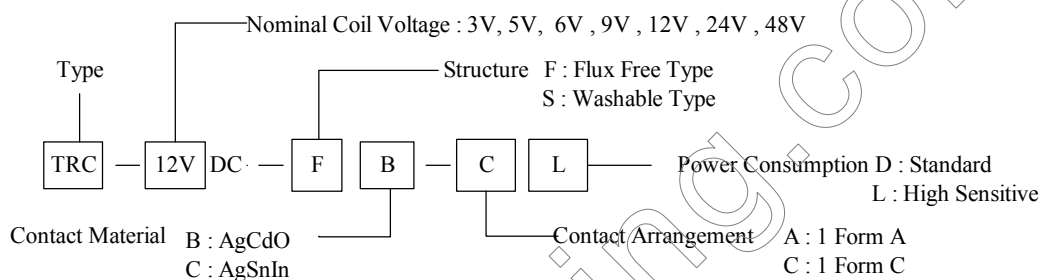
- Smallest size (10.2 × 18.2 × 14.8 mm) at 10A switching capacity relay for high density P.C. board mounting technique.
- 1A and 1C contact form available.
- Surge resistiveness of 5000V on series relays.
- Design conforms to foreign safety standard (UL/CSA/TUV).
- Selection of plastic insulation material for high temperature and better chemical solution performance.



## ■ APPLICATIONS

- Domestic appliance, office machine, audio equipment, automobile, etc.

## ■ ORDERING INFORMATION

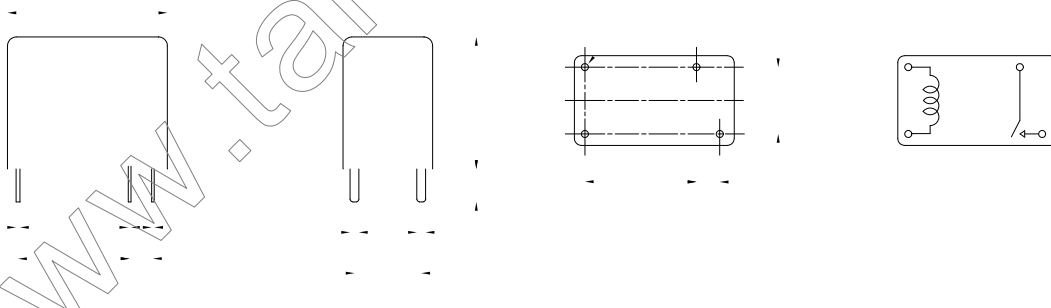


## ■ DIMENSION (unit:mm)

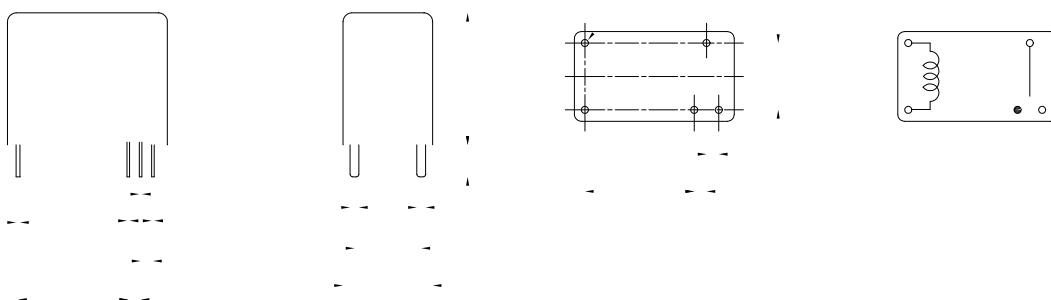
## ■ DRILLING (unit:mm)

## ■ WIRING DIAGRAM

1 Form A



1 Form C



## ■ COIL DATA CHART (AT20°C)

| Coil Sensitivity            | Coil Voltage Code | Nominal Voltage (VDC) | Nominal Current (mA) | Coil Resistance ( $\Omega$ ) $\pm 10\%$ | Power Consumption (W) | Pull-In Voltage (VDC) | Drop-Out Voltage (VDC) | Max-Allowable Voltage (VDC) |
|-----------------------------|-------------------|-----------------------|----------------------|-----------------------------------------|-----------------------|-----------------------|------------------------|-----------------------------|
| TRC-L<br>(High Sensitivity) | 03                | 3                     | 67                   | 45                                      | abt. 0.2W             | 75% Max.              | 5% Min.                | 130% Max.                   |
|                             | 05                | 5                     | 40                   | 125                                     |                       |                       |                        |                             |
|                             | 06                | 6                     | 33.3                 | 180                                     |                       |                       |                        |                             |
|                             | 09                | 9                     | 22.5                 | 400                                     |                       |                       |                        |                             |
|                             | 12                | 12                    | 16.7                 | 720                                     |                       |                       |                        |                             |
|                             | 24                | 24                    | 8.16                 | 2800                                    |                       |                       |                        |                             |
| TRC-D<br>(Standard)         | 03                | 3                     | 150                  | 20                                      | abt. 0.45W            | 75% Max.              | 5% Min.                | 120% Max.                   |
|                             | 05                | 5                     | 91                   | 55                                      |                       |                       |                        |                             |
|                             | 06                | 6                     | 75                   | 80                                      |                       |                       |                        |                             |
|                             | 09                | 9                     | 50                   | 180                                     |                       |                       |                        |                             |
|                             | 12                | 12                    | 37.5                 | 320                                     |                       |                       |                        |                             |
|                             | 24                | 24                    | 18.8                 | 1280                                    |                       |                       |                        |                             |
|                             | 48                | 48                    | 9.4                  | 5100                                    |                       |                       |                        |                             |

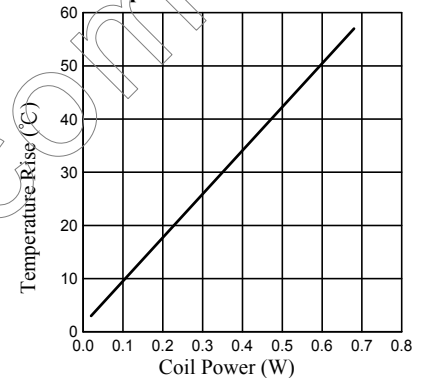
## CONTACT RATING

| Item                                          | Type | TRC                     |                       |
|-----------------------------------------------|------|-------------------------|-----------------------|
|                                               |      | D Type                  | L Type                |
| Contact Capacity                              |      |                         |                       |
| Resistive Load<br>( $\cos\Phi=1$ )            |      | 10A 120VAC<br>10A 28VDC | 7A 120VAC<br>7A 28VDC |
| Inductive Load<br>( $\cos\Phi=0.4$ L/R=7msec) |      | 4A 120VAC<br>4A 28VDC   | 2A 120VAC<br>2A 28VDC |
| Rated Carrying Current                        |      | 10A                     | 7A                    |
| Max. Allowable Voltage                        |      | 265VAC, 30VDC           |                       |
| Max. Allowable Current                        |      | 10A                     | 7A                    |
| Max. Allowable Power Force                    |      | 1200VA, 240W            | 840VA, 100W           |
| Referenced Min.<br>Applicable Load            |      | 5VDC, 10mA              |                       |
| Contact Material                              |      | Ag Alloy                |                       |

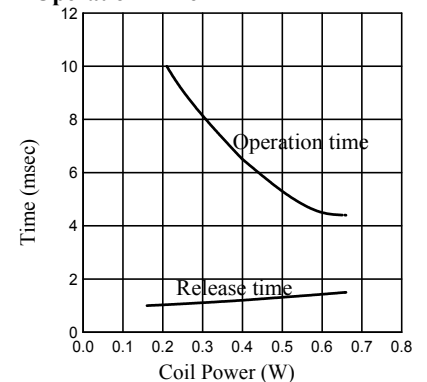
## PERFORMANCE (at initial value)

| Item                          | Type | TRC                                                           |              |
|-------------------------------|------|---------------------------------------------------------------|--------------|
|                               |      | 1 Form C                                                      | 1 Form A     |
| Contact Resistance            |      | 100m $\Omega$ Max.                                            |              |
| Operation Time                |      | 10msec Max.                                                   |              |
| Release Time                  |      | 4msec Max.                                                    |              |
| Dielectric Strength           |      |                                                               |              |
| Between coil & contact        |      | 2800VAC 1 minute                                              | 3500VAC 1min |
| Between contacts              |      | 750VAC/min                                                    |              |
| Surge Resistiveness           |      | 5000V                                                         |              |
| Insulation Resistance         |      | 100 M $\Omega$ Min. (500VDC)                                  |              |
| Max. ON/OFF Switching         |      |                                                               |              |
| Mechanically                  |      | 300 operation/min                                             |              |
| Electrically                  |      | 30 operation/min                                              |              |
| Operating Ambient Temperature |      | -30°C to +60°C                                                |              |
| Operating Humidity            |      | 45 to 85% RH                                                  |              |
| Coil Temperature Rise         |      | 40 deg. Max. (at rated coil voltage)                          |              |
| Vibration                     |      |                                                               |              |
| Endurance                     |      | 10 to 55HZ Double Amplitude 1.5mm                             |              |
| Error Operation               |      | 10 to 55HZ Double Amplitude 1.5mm                             |              |
| Shock                         |      |                                                               |              |
| Endurance                     |      | 100G Min.                                                     |              |
| Error Operation               |      | 10G Min.                                                      |              |
| Life Expectancy               |      |                                                               |              |
| Mechanically                  |      | 10 $\times$ 10 <sup>6</sup> ops. Min. (no load)               |              |
| Electrically                  |      | 10 $\times$ 10 <sup>4</sup> ops. Min. (at rated coil voltage) |              |
| Weight                        |      | abt. 6grs.                                                    |              |
| UL File No.                   |      | E156521                                                       |              |
| CSA File No.                  |      | LR102317                                                      |              |
| TUV File No.                  |      | R9452084                                                      |              |

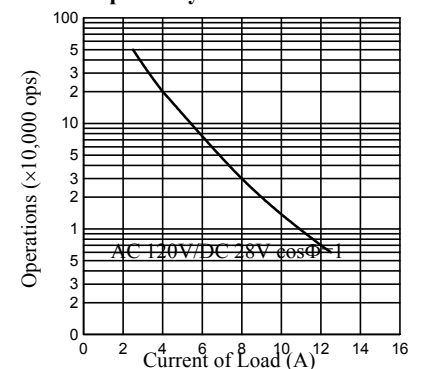
Coil Temperature Rise



Operation Time



Life Expectancy



## REFERENCE DATA