

## General Purpose PCB Relay, 10A



#### **DESCRIPTION**

General Purpose Miniature single pole Signal/Power Relays. These general purpose, miniature, single pole, through hole mounting relays are designed for switching control signals within circuits.

#### **DISTINCTIVE FEATURES**

- Miniature Size
- Fully Sealed Construction
- Contact Form: 1 Form A, 1 Form B, 1 Form C
- SPDT, SPST-NO, SPST-NC Contact Configuration
- PCB Mounting

#### **APPLICATIONS**

The small dimensions of these miniature relays make them suitable for a wide range of applications including automotive electronics, automation control, measurement, and industrial equipment.

10A









28V DC





## **ELECTRICAL SPECIFICATION**

| Contact Form          | 1 Form A, 1 Form B, 1 Form C (See Part Number Table) |                 |  |  |  |
|-----------------------|--|-----------------|--|--|--|
| Contact Rating        | 10A 250VAC/24VDC                                     |                 |  |  |  |
| Contact Resistance    | Maximum 100mΩ (6VDC 1A)                              |                 |  |  |  |
| Insulation Resistance | Minimum 1000MΩ 500VDC                                |                 |  |  |  |
| Load                  | Maximum Switching Voltage                            | 250VAC/28VDC    |  |  |  |
|                       | Maximum Switching Current                            | 15A             |  |  |  |
|                       | Maximum Switching Power                              | 2,500VA, 280W   |  |  |  |
|                       | Minimum Switching Load                               | 5VDC, 100mA     |  |  |  |
| Dielectric Strength   | Between open contacts                                | 1,000VAC, 1 min |  |  |  |
|                       | Between coil and contacts                            | 1,500VAC, 1 min |  |  |  |

Coil Data Ambient Temperature: 23°C

| Part number |    | Coil Resistance<br>Ω+/-10% | Operate Voltage<br>≤VDC | Release Voltage<br>≥VDC | Coil Power<br>mW |
|-------------|----|----------------------------|-------------------------|-------------------------|------------------|
| 61-6295     | 12 | 320                        | 8.4                     | 1.2                     | 450              |
| 61-6296     | 24 | 1280                       | 16.8                    | 2.4                     | 450              |



## **GENERAL SPECIFICATION**

| Series        | Miniature Power Relays |
|---------------|------------------------|
| Mounting Type | PCB mounting           |
| RoHS          | Yes                    |



## MATERIALS

| Contact Material    | Ag Alloy           |  |  |
|---------------------|--------------------|--|--|
| Outer Case Material | PBT Plastic sealed |  |  |





## **CERTIFICATION AND STANDARDS**

| File Number                 | Contact<br>Form | Power<br>Consumption | Coil Voltage | Contact rating          | Remarks   |  |
|-----------------------------|-----------------|----------------------|--------------|-------------------------|---|--|
|                             | А               | 0.36W/0.45W          | 3 - 48VDC    | 10A 250VAC              | Ambient Temperature: 85°C                       |  |
| CQC 08002027614             | В               | 0.36W/0.45W          | 3 - 48VDC    | 6A 250VAC               |   |  |
| (GB/T 21711.1-2008)         | С               | 0.36W/0.45W          | 3 - 48VDC    | NO/NC: 10A/6A<br>250VAC |   |  |
| UL E164730                  | A/C             | 0.36W/0.45W          | 3 - 48VDC    | 10A<br>250VAC/30VDC     | Class F Insulation<br>Ambient Temperature: 85°C |  |
| TUV 50116136                | A/B/C           | 0.000000.4500        | 3 - 48VDC    | 10A<br>250VAC/24VDC     | Ambient Temperature: 85°C                       |  |
| TUV50116136<br>(EN 60730-1) | A/B/C           | 0.36W/0.45W          |              | 10(2)A 250VAC           | Ambient Temperature: 85°C                       |  |

Specifications subject to change without notice.



#### **ENVIRONMENTAL/OPERATING SPECIFICATION**

| Life                  | Electrical Life | 100,000 operations (NO contact ) |  |  |  |
|-----------------------|-----------------|----------------------------------|--|--|--|
|                       | Mechanical Life | 10,000,000 operations            |  |  |  |
| Operate Time          | Maximum 10ms    | ·                                |  |  |  |
| Release Time          | Maximum 5ms     | Maximum 5ms                      |  |  |  |
| Operating Temperature | -40°C to +85°C  | -40°C to +85°C                   |  |  |  |
| Humidity              | 35~95%RH, +40°C | 35~95%RH, +40°C                  |  |  |  |
| Shock Resistance      | Endurance       | 1,000m/s <sup>2</sup>            |  |  |  |
|                       | Misoperation    | 100m/s <sup>2</sup>              |  |  |  |
| Vibration Resistance  | Endurance       | 10~55Hz, 1.5mm double amplitude  |  |  |  |
|                       | Misoperation    | 10~55Hz, 1.5mm double amplitude  |  |  |  |



## **TERMINALS**

| Terminal Type       | Solder pins                 |  |  |
|---------------------|-----------------------------|--|--|
| Terminal Dimensions | See drawing on page 4 and 5 |  |  |



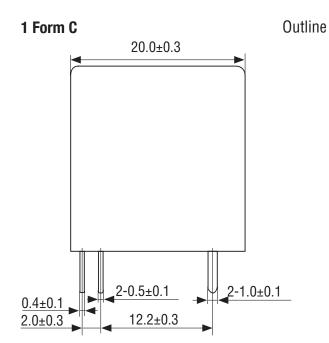


## **DIMENSIONS/DRAWINGS**

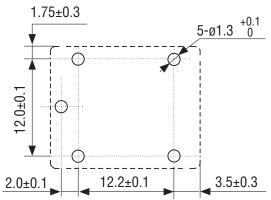
| Units                   | mm - unless stated otherwise |
|-------------------------|------------------------------|
| Dimensions (Summary)    | 20.0 × 16.3 × 20.2           |
| Length                  | 20.0                         |
| Width                   | 16.3                         |
| Height (Excluding pins) | 20.2                         |
| Weight                  | 12g (approx.)                |

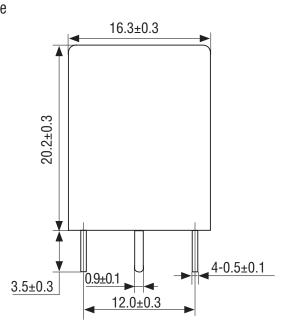


### OUTLINE, WIRING DIAGRAM, MOUNTING HOLE LAYOUT (UNIT: mm)

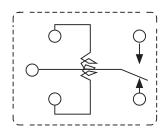






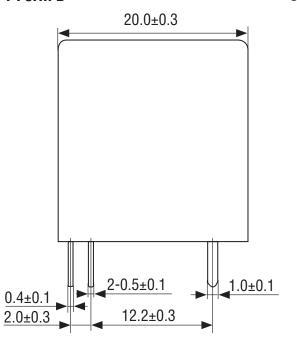


Wiring Diagram (Bottom View)

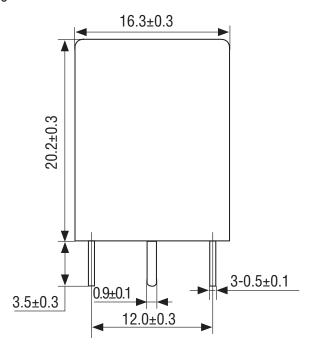




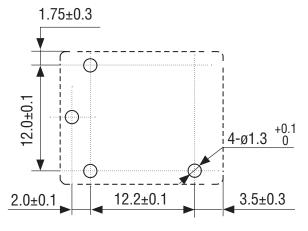
## 1 Form B



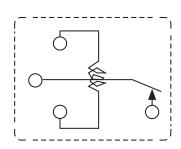
Outline



Mounting Hole Layout (Bottom View)

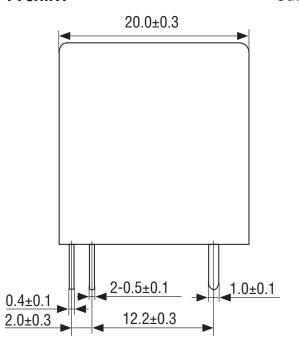


Wiring Diagram (Bottom View)

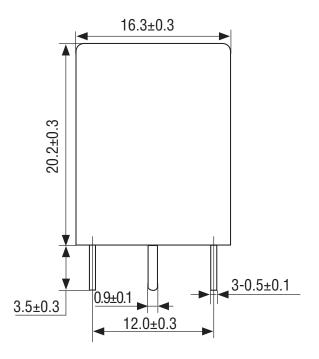




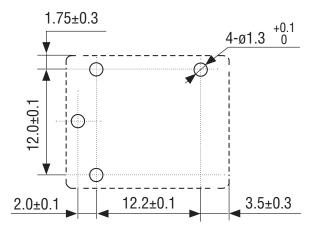
## 1 Form A



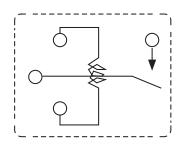
Outline



# Mounting Hole Layout (Bottom View)



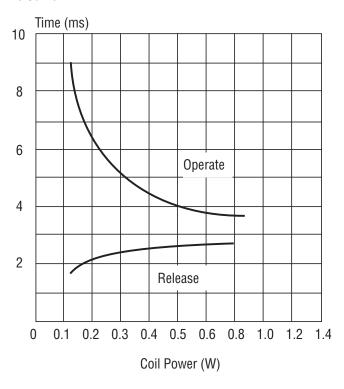
Wiring Diagram (Bottom View)



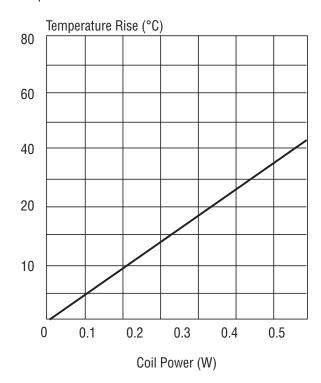


## REFERENCE DATA

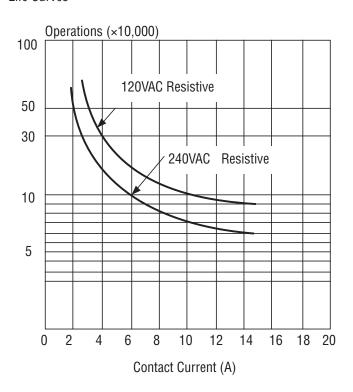
#### Time Curve



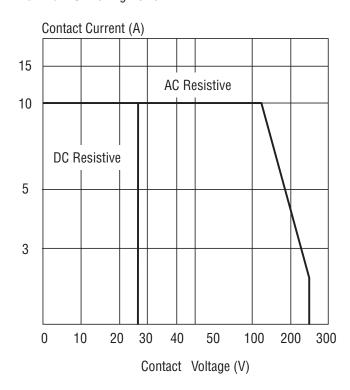
#### Coil Temperature Rise



#### Life Curves



#### Maximum Switching Power





#### **OPTIONS** (MOQ may apply)

| Coil Voltage          | 3, 5, 6, 9, 12, 24 & 48V |
|-----------------------|--------------------------|
| Coil Sensitivity      | High Sensitivity (360mW) |
| Contact Form          | 1 Form A and 1 Form B    |
| Contact Configuration | SPST-NO, SPST-NC         |



#### **PART NUMBER TABLE**

| Part<br>number | Nominal Coil<br>Voltage | Contact<br>Form | Enclosure | Coil Sensitivity | UNSPSC   | EAN           | Country of Origin |
|----------------|-------------------------|-----------------|-----------|------------------|----------|---------------|-------------------|
| 61-6295        | 12VDC                   | 1 Form C        | Sealed    | Standard (450mW) | 39122325 | 5053556018741 | China             |
| 61-6296        | 24VDC                   | 1 Form C        | Sealed    | Standard (450mW) | 39122325 | 5053556018758 | China             |

For further information on pricing, delivery, and long-term stock agreements please get in touch with your local business development contact, telephone our main office on **01206 838000** or email **Sales@Rapidonline.com**.



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