CUI Devices is now Same Sky! Learn More

same sky

Additional Resources: Product Page | 3D Model | PCB Footprint



# SERIES: PR19 | DESCRIPTION: POWER RELAY

## FEATURES

- 5V/12V/24V
- SPST
- 250 mW



## MODEL

| MODEL | coil voltage typ (Vdc) | coil resistance (Ω±10%) | operating voltage min (Vdc) | release voltage max (Vdc) | coil power max (mW) |
|---|---|---|---|---|---|
| PR19-5V-250-1A | 5 | 100 | 3.75 | 0.5 | 250 |
| PR19-12V-250-1A | 12 | 576 | 9.0 | 1.2 | 250 |
| PR19-24V-250-1A | 24 | 2,304 | 18.0 | 2.4 | 250 |

Notes: 1. All specifications are measured at 23°C unless otherwise specified.

## PART NUMBER KEY

PR19 - XX - 250 - 1A

Base Number

Coil Voltage (Vdc):
5V = 5
12V = 12
24V = 24

## CONTACT SPECIFICATIONS

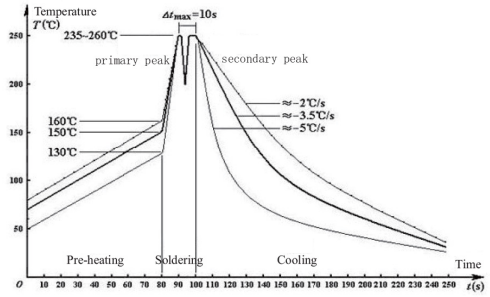
| parameter | conditions/description | min | typ | max | units |
|---|---|---|---|---|---|
| contact form | 1 Form A | | | | |
| contact material | Ag alloy | | | | |
| contact rating | 10 A @ 250 Vac<br>10 A @ 30 Vdc | | | | |
| contact resistance | at 6 Vdc, 1.0 A | | | 100 | mΩ |
| max switching voltage | | | | 250<br>30 | Vac<br>Vdc |
| max switching current | | | | 10 | A |
| max switching power | | | | 2,500<br>300 | VA<br>W |
| min switching load | 5 Vdc, 100 mA | | | | |
| life | electrical<br>mechanical | | 100,000<br>2,000,000 | | operations<br>operations |

## GENERAL SPECIFICATIONS

| parameter | conditions/description | min | typ | max | units |
|---|---|---|---|---|---|
| insulation resistance | at 500 Vdc | 1,000 | | | MΩ |
| dielectric strength | between open contacts for 1 minute<br>between coil and contacts for 1 minute | | 1,000<br>4,000 | | Vac<br>Vac |
| operate time | | | | 15 | ms |
| release time | | | | 8 | ms |
| shock resistance | endurance<br>misoperation | | 1,000<br>100 | | $m/s^2$<br>$m/s^2$ |
| vibration resistance | endurance: 10~55 Hz, 1.5 mm double amplitude<br>misoperation: 10~55 Hz, 1.5 mm double amplitude | | | | |
| operating temperature | | -40 | | 70 | °C |
| humidity | at 40°C | 35 | | 95 | %RH |
| weight | | | 10.0 | | g |
| safety approvals | UL/cUL 508 | | | | |
| flammability rating | UL94V-0 | | | | |
| RoHS | yes | | | | |
| packaging | tube: 25 pcs per tube<br>carton size: 340 x 340 x 170 mm<br>carton QTY: 1,000 pcs per carton | | | | |

## SOLDERABILITY

| parameter | conditions/description | min | typ | max | units |
|---|---|---|---|---|---|
| hand soldering | for 3.5±0.5 seconds | 340 | 350 | 360 | °C |
| wave soldering | for 10±1 seconds | 255 | 260 | 265 | °C |

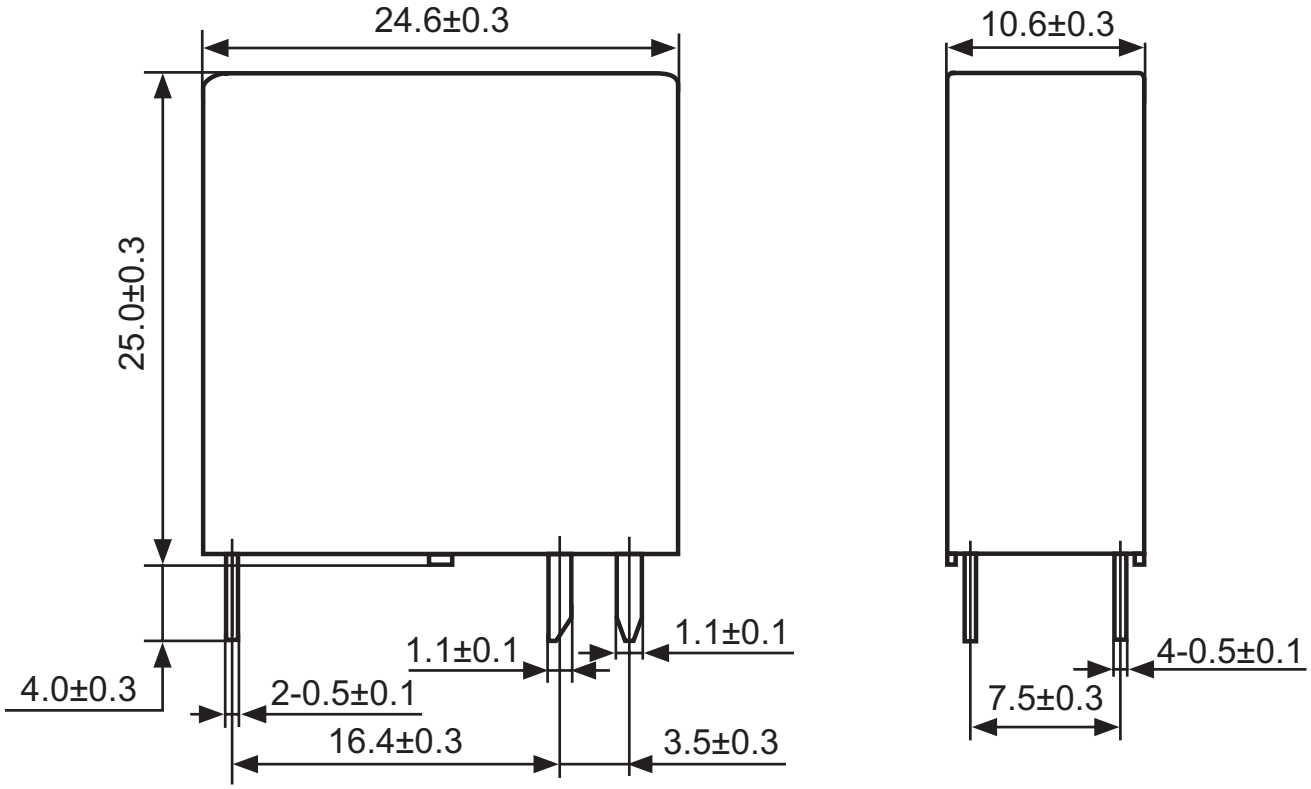


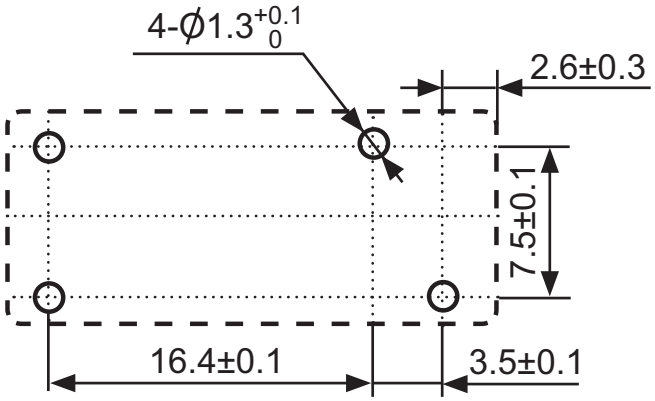

Double-wave Soldering Curve

## MECHANICAL DRAWING

units: mm
tolerance: ±0.3 mm
unless otherwise noted

| ITEM | DESCRIPTION | MATERIAL | PLATING/COLOR |
|---|---|---|---|
| A | housing | PBT (UL94V-0) | black |
| B | terminals | copper covered steel | tin |



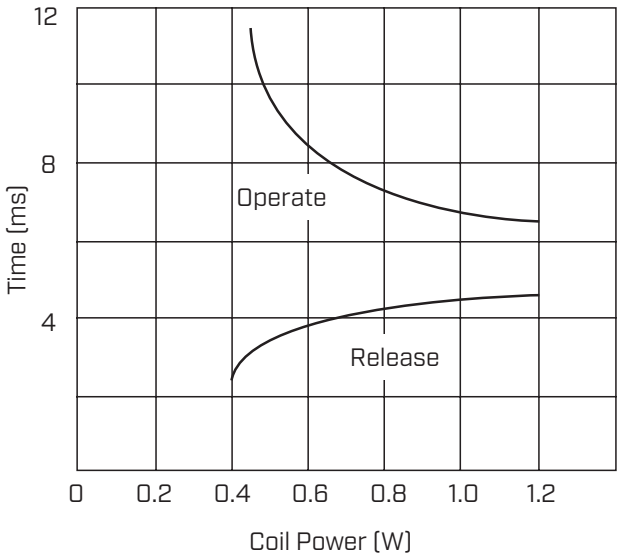

Recommended PCB Layout
Bottom View



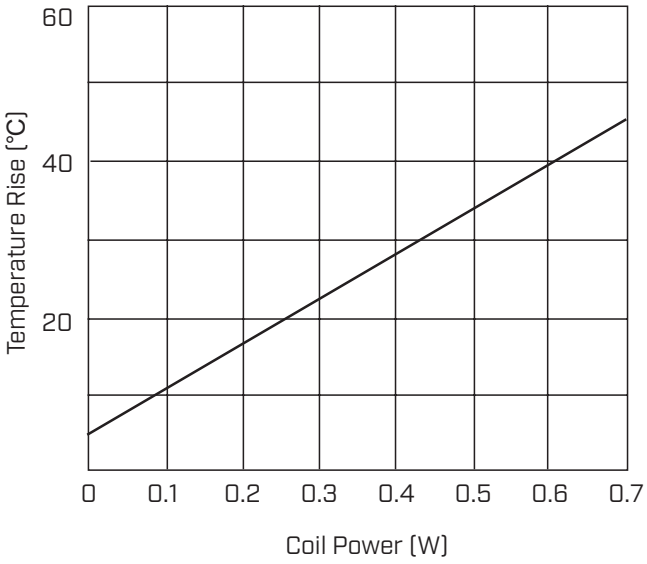
Wiring Diagram
Bottom View

## CHARACTERISTIC CURVES

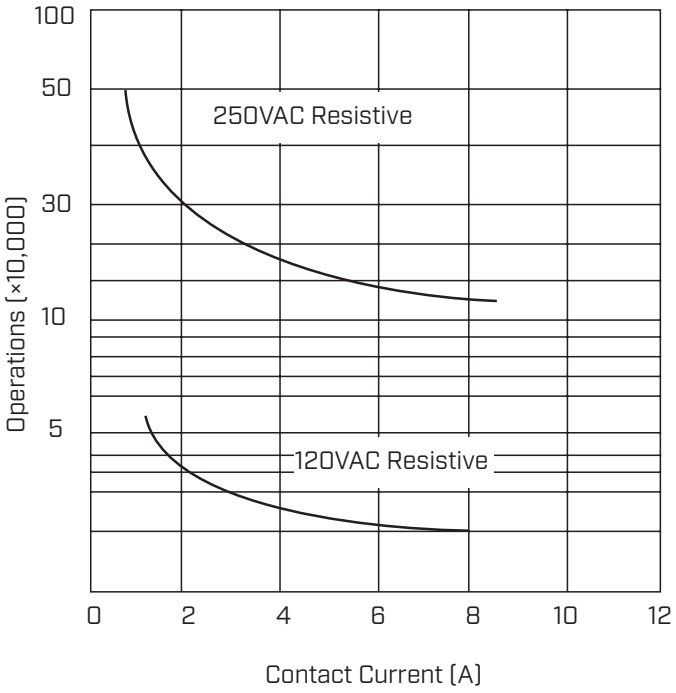
Time Curve



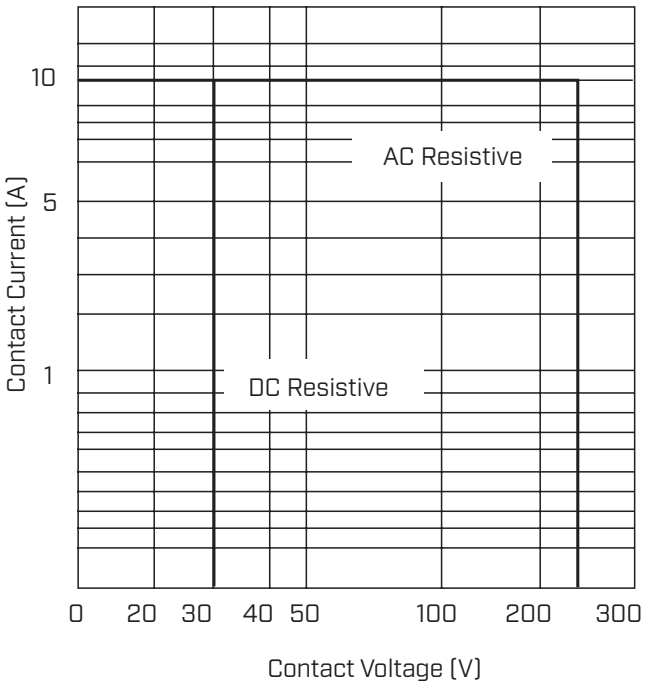

Coil Temperature Rise




Life Curve




Maximum Switching Power



## REVISION HISTORY

| rev. | description | date |
|---|---|---|
| 1.0 | initial release | 08/09/2022 |
| 1.01 | CUI Devices rebranded to Same Sky | 09/12/2024 |

The revision history provided is for informational purposes only and is believed to be accurate.

Same Sky offers a one (1) year limited warranty. Complete warranty information is listed on our website.

Same Sky reserves the right to make changes to the product at any time without notice. Information provided by Same Sky is believed to be accurate and reliable. However, no responsibility is assumed by Same Sky for its use, nor for any infringements of patents or other rights of third parties which may result from its use.

Same Sky products are not authorized or warranted for use as critical components in equipment that requires an extremely high level of reliability. A critical component is any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.