



SERIES: PR18 | **DESCRIPTION:** POWER RELAY

FEATURES

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

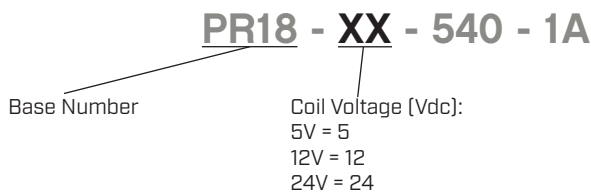


MODEL

| | coil voltage | coil resistance | operating voltage | release voltage | coil power |
|-----------------|---------------------|----------------------------------|--------------------------|------------------------|--------------------|
| | typ (Vdc) | ($\Omega \pm 10\%$) | min (Vdc) | max (Vdc) | max (mW) |
| PR18-5V-540-1A | 5 | 47 | 3.75 | 0.5 | 540 |
| PR18-12V-540-1A | 12 | 267 | 9.0 | 1.2 | 540 |
| PR18-24V-540-1A | 24 | 1,067 | 18.0 | 2.4 | 540 |

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

PART NUMBER KEY



CONTACT SPECIFICATIONS

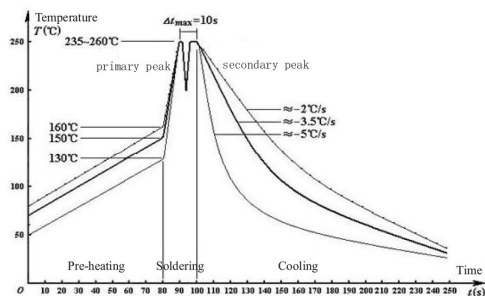
| parameter | conditions/description | min | typ | max | units |
|-----------------------|---------------------------------|-----|----------------------|--------------|--------------------------|
| contact form | 1 Form A | | | | |
| contact material | Ag alloy | | | | |
| contact rating | 10 A @ 250 Vac 10 A @ 30 Vdc | | | | |
| contact resistance | at 6 Vdc, 1.0 A | | | 100 | mΩ |
| max switching voltage | | | | 250 30 | Vac Vdc |
| max switching current | | | | 10 | A |
| max switching power | | | | 2,500 300 | VA W |
| min switching load | 5 Vdc, 100 mA | | | | |
| life | electrical mechanical | | 100,000 2,000,000 | | operations 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 between coil and contacts for 1 minute | | 1,000 4,000 | | Vac Vac |
| operate time | | | | 15 | ms |
| release time | | | | 8 | ms |
| shock resistance | endurance misoperation | | 1,000 100 | | m/s ² m/s ² |
| vibration resistance | endurance: 10~55 Hz, 1.5 mm double amplitude 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 carton size: 340 x 340 x 170 mm 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 |

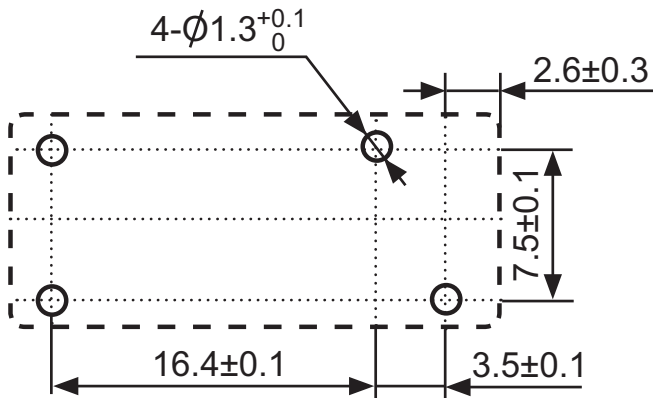
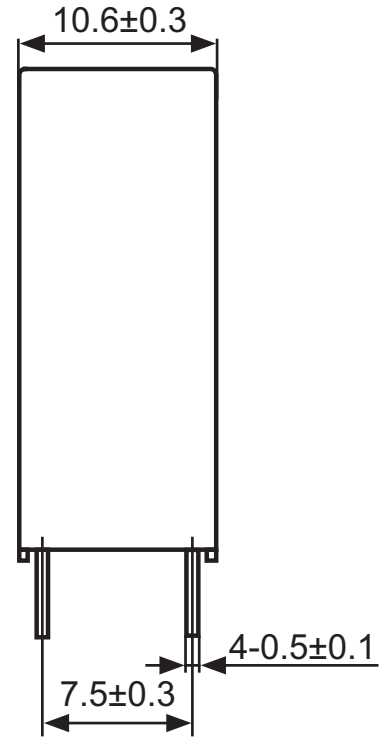
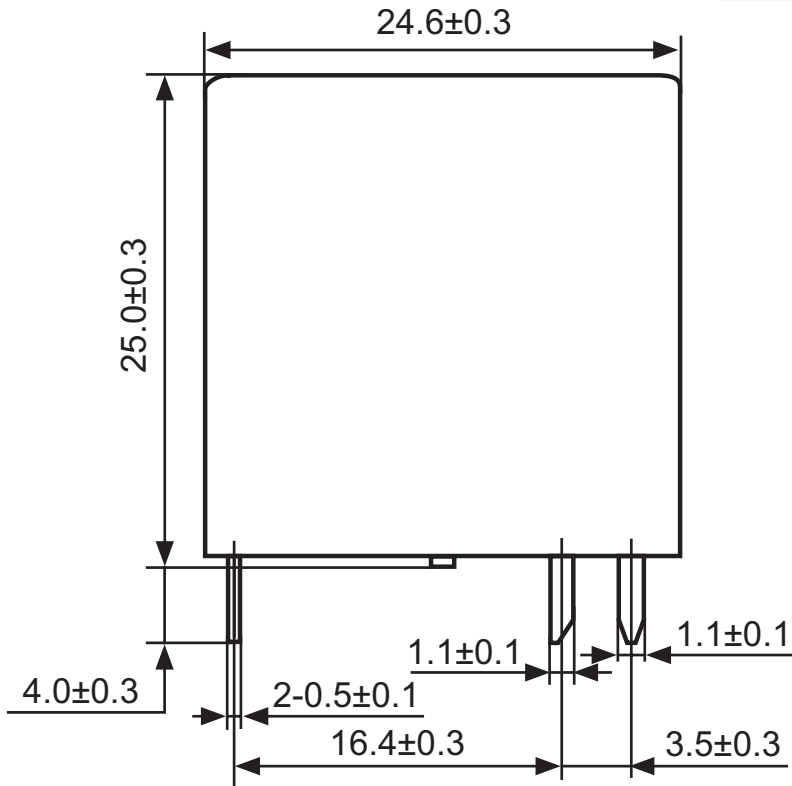


Double-wave Soldering Curve

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 |



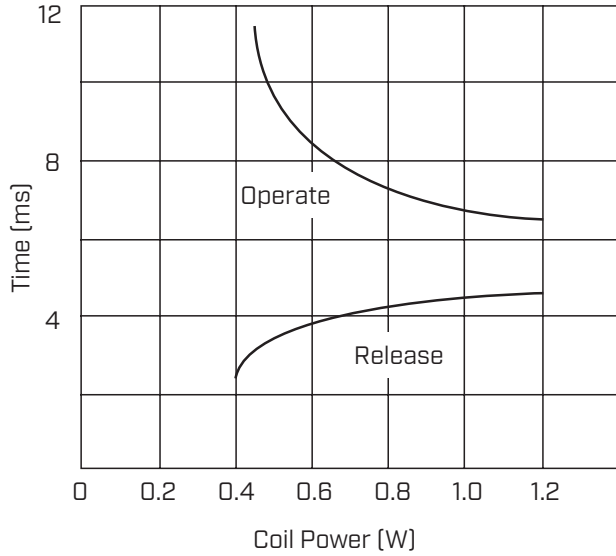
Recommended PCB Layout
 Bottom View



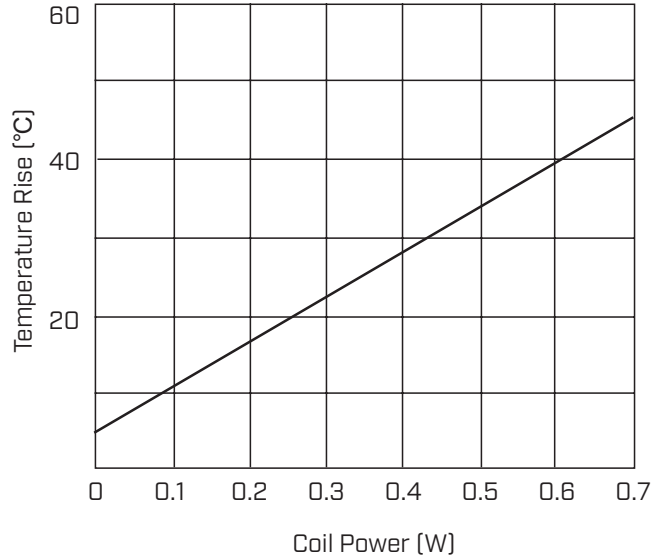
Wiring Diagram
 Bottom View

CHARACTERISTIC CURVES

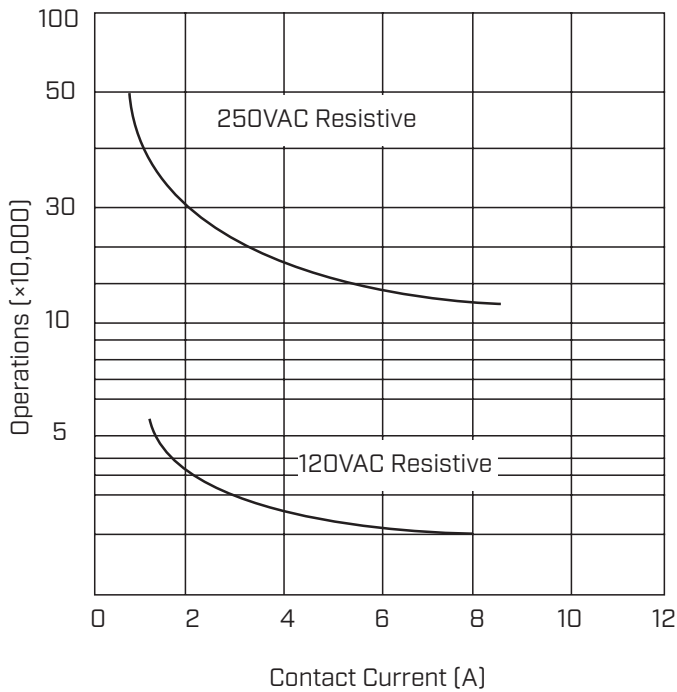
Time Curve



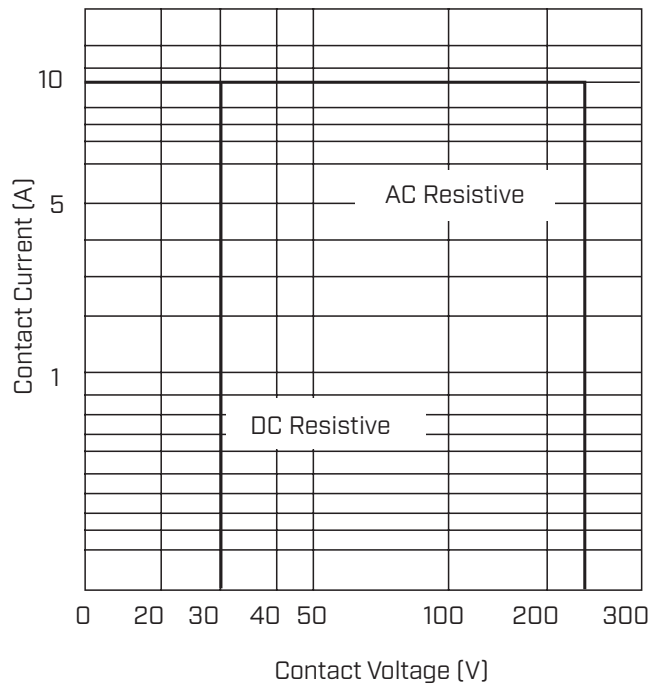
Coil Temperature Rise



Life Curve



Maximum Switching Power



REVISION HISTORY

| rev. | description | date |
|------|-----------------|------------|
| 1.0 | initial release | 08/09/2022 |

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



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