

Miniature Power PCB RY II & RY II reflow-solderable

- 1 pole 8 A, 1 CO or 1 NO or 1 NC contact
- Low component height 12.3 mm
- 5 kV / 8 mm coil-contact
- Reinforced insulation (protection class II)
- Pinings: 3.2 and 5 mm
- reflow-solderable version
- Sockets with PCB-type or screw-type terminals
- Especially suitable for resistive and inductive loads on NO and NC contacts
- Plastic materials according to IEC60335-1 (domestic appliances)
(not at reflow-solderable version)
- RoHS compliant (Directive 2002/95/EC) as per product date code 0403

Applications: heating control, interface technology, domestic appliances, timers, temperature control

Approvals

VDE REG.-Nr. 5358, cULus E214025
Technical data of approved types on request

Contact data

| | |
|--|--------------------------------------|
| Contact configuration | 1 CO or 1NO or 1NC |
| Contact set | single contact |
| Type of interruption | micro disconnection |
| Rated current | 8 A |
| Rated voltage / max. switching voltage AC | 250/400 VAC |
| Maximum breaking capacity AC | 2000 VA |
| Contact material | AgNi0,15, AgSnO ₂ , AgCdO |
| Mechanical endurance | 30x10 ⁶ cycles |
| Rated frequency of operation with / without load | 6 / 1200 min ⁻¹ |

Contact ratings

| Type | Load | Cycles |
|----------------|-----------------------------------|--------------------|
| RY**1*** | NO, 8 A, 250 VAC, resistive, 70°C | 1x10 ⁵ |
| RY**1*** | NC, 8 A, 250 VAC, resistive, 70°C | 5x10 ⁴ |
| RY**(0,1,2)*** | 8 A, 30 VDC, UL 508 | 3 x10 ⁴ |
| RY**(0,1,2)*** | 0,28 A, 250 VDC, UL 508 | 3 x10 ⁴ |
| RY**(0,1,2)*** | 1/2 HP, 240 VDC, UL 508 | |
| RY**(0,1,2)*** | 1/4 HP, 120 VDC, UL 508 | |
| RY**(0)*** | 8 A, 415 VAC, resistive, UL 508 | 6 x10 ³ |
| RY**(0,1,2)*** | Pilot duty - B300, UL 508 | 6000 |
| RY*** | CO, 8 A, 250 VAC, resistive, 70°C | 5x10 ³ |
| RY**1 *** | 6(4)A, 250 VAC, 85°C, EN60730 | 1x10 ⁵ |

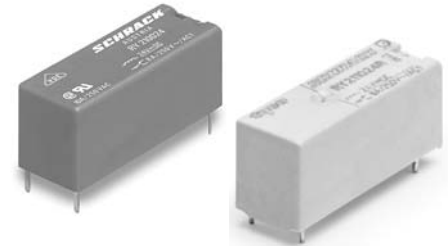
Coil data

| | |
|----------------------------------|-------------|
| Rated coil voltage range DC coil | 5...60 VDC |
| Coil power DC coil | typ. 220 mW |
| Operative range | 2 |

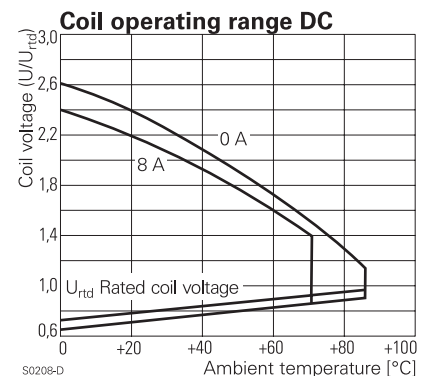
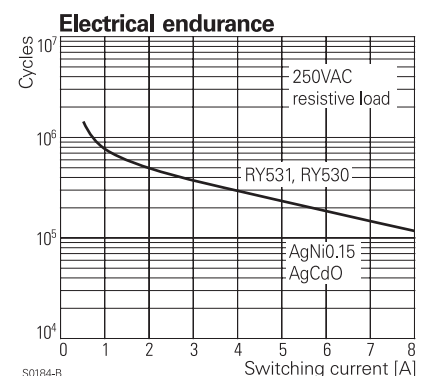
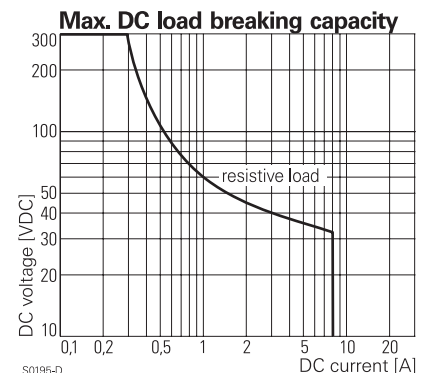
Coil versions, DC-coil

| Coil code | Rated voltage VDC | Operate voltage VDC | Release voltage VDC | Coil resistance Ohm | Rated coil power mW |
|-----------|-------------------|---------------------|---------------------|---------------------|---------------------|
| 005 | 5 | 3,5 | 0,5 | 112±10% | 223 |
| 006 | 6 | 4,2 | 0,6 | 162±10% | 222 |
| 009 | 9 | 6,3 | 0,9 | 320±10% | 253 |
| 012 | 12 | 8,4 | 1,2 | 627±10% | 230 |
| 024 | 24 | 16,8 | 2,4 | 2350±10% | 245 |
| 048 | 48 | 33,6 | 4,8 | 9391±10% | 245 |
| 060 | 60 | 42,0 | 6,0 | 14000±10% | 257 |

All figures are given for coil without preenergization, at ambient temperature +23°C
Other coil voltages on request



F0142-C



Miniature Power PCB RY II & RY II reflow-solderable (Continued)

| Insulation | CO contact | NO contact |
|---|------------|-----------------------|
| Dielectric strength coil-contact circuit | | 5000 V _{eff} |
| open contact circuit | | 1000 V _{eff} |
| Clearance / creepage coil-contact circuit | | ≥ 8 / 8 mm |
| Material group of insulation parts | | IIIa |
| Tracking index of relay base | | PTI250, PTI 175* |
| Insulation to IEC 60664-1 | | |
| Type of insulation coil-contact circuit | | reinforced |
| open contact circuit | | functional |
| Rated insulation voltage | 250 V | 250 V |
| Pollution degree | 3 | 2 |
| Rated voltage system | 230 V | 400 V |
| Overvoltage category | III | III |

Other data

| | |
|---|---|
| RoHS - Directive 2002/95/EC | compliant as per product date code 0403 |
| Flammability class according to UL94 | V-0 |
| GWFI to IEC 60335-1 | > 850 °C** |
| GWT to IEC 60335-1 | > 750 °C** |
| Ambient temperature range | -40...+70°C |
| Ambient temperature max. | 85°C at 6A |
| Operate- / release time | typ. 7 / 3 ms |
| Bounce time NO / NC contact | typ. 2.5 / 4.5 ms |
| Vibration resistance (function) NO / NC contact | 20 / 5 g |
| Shock resistance (function) NO / NC contact | 20 / 5 g |
| Shock resistance (destruction) | 100 g |
| Category of protection | RTII-flux proof, RTIII- wash tight** |
| Mounting | pcb |
| Mounting position | any |
| Minimum mounting distance | ≥ 0 mm |
| Soldering heat resistance flux proof version | 270°C / 10 s |
| wash tight version | 260°C / 5 s |
| Relay weight | 8 g |
| Packaging unit | 20 / 500 pcs |

Accessoires

For technical details see datasheet Accessoires RYII

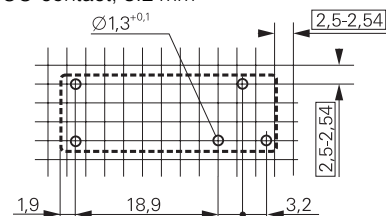
* reflow-solderable version

** not as reflow-solderable version

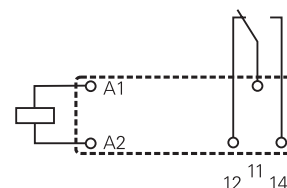
PCB layout / terminal assignment

Bottom view on solder pins

1 CO contact, 3.2 mm

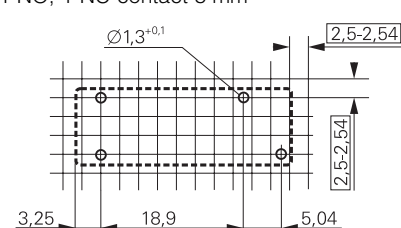


S0254-AA

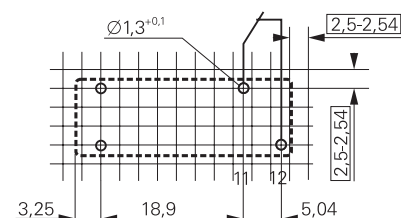


S0254-AB

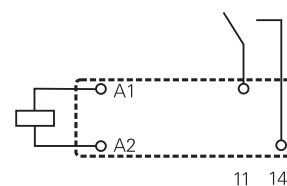
1 NO, 1 NC contact 5 mm



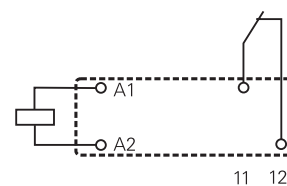
S0254-AC



S0254-AE



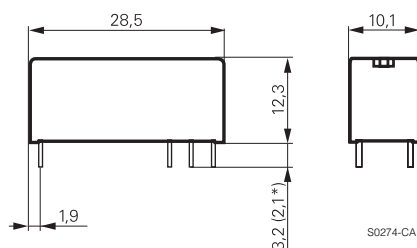
S0254-AD



S0254-AF

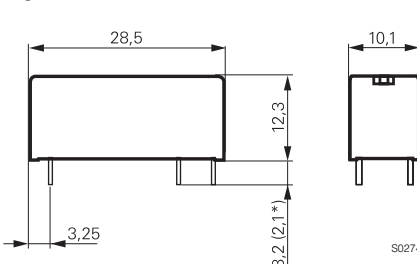
Dimensions

Pinning 3.2 mm



S0274-CA

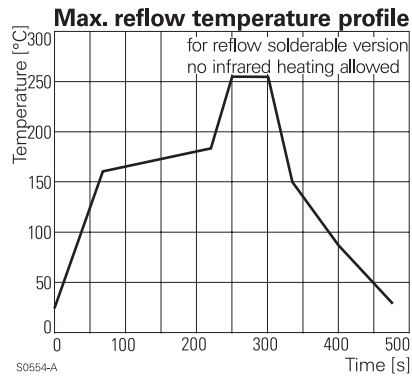
Pinning 5 mm



S0274-CB

Miniature Power PCB RY II & RY II reflow-solderable (Continued)

Soldering profile for reflow-solderable version



Product key

Type

Version

- 2** pinning 3.2 mm, flux proof
5 pinning 5 mm, flux proof

- 6** pinning 3.2 mm, wash tight
A pinning 5 mm, wash tight

Contact configuration

- 1** 1 CO contact, pinning 3.2 mm

- 3** 1 NO contact, pinning 5 mm
5 1 NC contact, pinning 5 mm

Contact material

- 0** AgCdO
1 AgNi 0.15

- 2** AgNi 0.15 gold plated
3 AgSnO₂

Coil

Coil code: please refer to coil versions table

Other types on request

| | | | | | | | |
|----------|----------|--|--|--|--|--|--|
| R | Y | | | | | | |
|----------|----------|--|--|--|--|--|--|