

DC operated slim type card relays

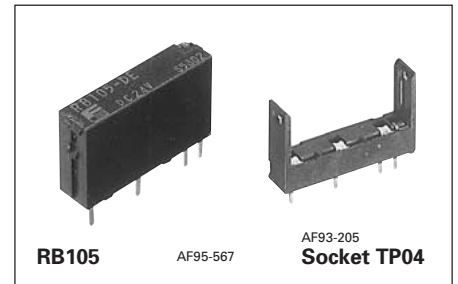
Rated thermal current 5 Amps.

■ Description

The RB104 and 105 relays are designed for printed circuit board use. These relays are extremely thin (5mm) and so, can be densely mounted on PC boards. As a result, PC board size and cost can be greatly reduced. Employing of bifurcated contacts ensure high contact reliability, allowing the RB104,105 relays to be used in low-level circuits. Coil voltages are available in ranges from 4.5V to 24V DC.

■ Features

- Thin, miniature size and light weight
The mounting space on the PC board can be reduced.
- UL, CSA and TÜV approved
- Low power consumption
They can be operated by means of non-polarity magnet.
- SIL terminal arrangement
SIL (Single-side In-Line lead) package allows the relays to be mounted easily on PC board.
- Fluxtight construction
- Immersion cleanable



■ **Ordering information**
Specify the following:
1. Type number

■ Types and ratings

| Type | Ordering code | Power consumption | Rated voltage | Pick-up voltage | Thermal current | Make and break current (res.load) |
|-------|---------------|-------------------|---------------|------------------------------|-----------------|-----------------------------------|
| RB104 | RB104-■ | 120mW | 4.5, 5, 6 | 70% of rated voltage or less | 5A | 5A at 250V AC 5A at 30V DC |
| RB105 | RB105-■ | 200mW | 9, 12, 24V DC | | | |

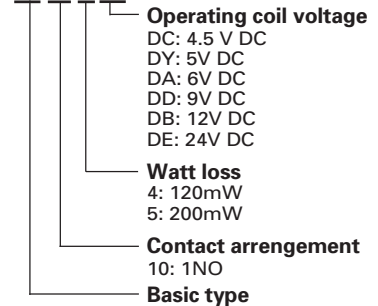
Note: Enter the coil voltage code in the ■ mark as follow
4.5V DC: DC, 5V DC: DY, 6V DC: DA, 9V DC: DD, 12V DC: DB, 24V DC: DE

■ Specifications

| | | |
|------------------------------|----|--|
| Operating time | | 10ms or less at rated voltage |
| Release time | | 5ms or less at rated voltage |
| Dielectric strength | | 750V AC rms. 1 min. between open contacts 2,000V AC rms. 1 min. between contact and coil |
| Stray electrostatic capacity | | Approx. 1.4pF between contact and coil |
| Impulse | | 4,500V or more 1.2 × 50μs between contact and coil |
| Insulation resistance | | 100MΩ at 500V DC megger |
| Electrical durability | AC | 100,000 operations at 220V AC 2A, inductive load |
| | DC | 130,000 operations at 220V AC 3A, resistive load 150,000 operations at 24V DC 1A, inductive load 100,000 operations at 24V DC 5A, resistive load |
| Mechanical durability | | 20 million operations |
| Ambient temperature | | -40°C to +70°C (no icing) |

■ Type number nomenclature

RB 10 4-DE



■ Approvals

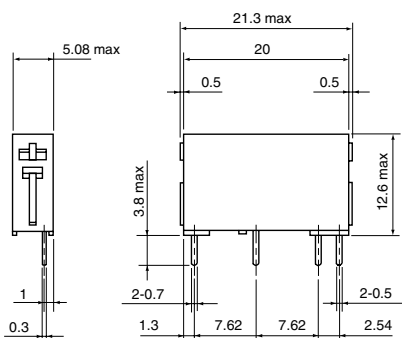
- UL, CSA and TÜV
UL file No. E44592
CSA file No. LR20479
TÜV license No. R9551729

● Ratings

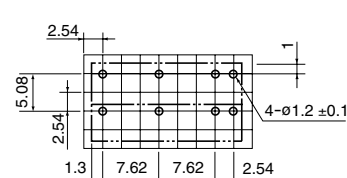
| Voltage | Resistive load | Inductive load |
|---------|----------------|----------------|
| 120V AC | - | 1A |
| 240V AC | 5A | - |
| 30V DC | 5A | 2A (15ms) |
| 120V DC | 0.5A | 0.2A (15ms) |

■ Dimensions, mm

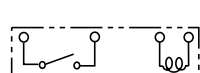
RB104,105



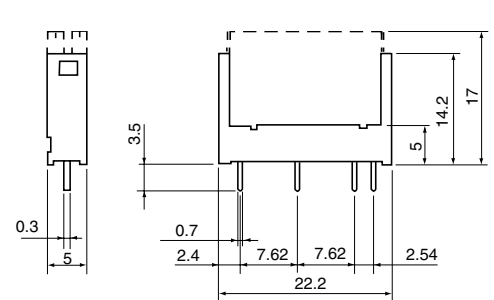
PC board drilling (View from back side)



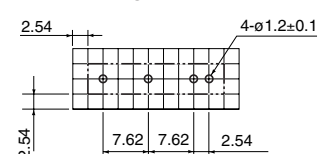
Internal wiring diagram



Socket TP04



PC board drilling (View from back side)



Mass: 3g