



»» Features

- Miniature 12A 125VAC, 10A 250VAC/30VDC PCB Relay.
- UL/CUL, CSA, TUV, VDE approved.
- 450mW and 200mW coil are available.
- High CTI 250 material or product comply with IEC 60335-1 are available.
- Complies with RoHS-Directive 2011/65/EU.
- Optional for halogen free version.

»» Type List

◆ 835

| Terminal style | Contact form | Insulation system | Designation (provided with) | | |
|----------------|--------------|-------------------|-----------------------------|-------------|----------------------|
| | | | Flux tight | Sealed type | Sealed type washable |
| PCB terminal | 1A (SPNO) | ----- | 835-1A-C | 835-1A-V | 835-1A-S |
| | | F | 835-1A-F-C | 835-1A-F-V | 835-1A-F-S |

◆ 835L

| | | | | | |
|--------------|-----------|-------|-------------|-------------|-------------|
| PCB terminal | 1A (SPNO) | ----- | 835L-1A-C | 835L-1A-V | 835L-1A-S |
| | | F | 835L-1A-F-C | 835L-1A-F-V | 835L-1A-F-S |

◆ 835NL

| | | | | | |
|--------------|-----------|-------|--------------|--------------|--------------|
| PCB terminal | 1A (SPNO) | ----- | 835NL-1A-C | 835NL-1A-V | 835NL-1A-S |
| | | F | 835NL-1A-F-C | 835NL-1A-F-V | 835NL-1A-F-S |

»» Ordering Information

835 - 1A - - C
 1 2 3 4 5 6 7 8

- | | |
|------------------------------------|---|
| 1. 835 -- Basic series designation | 6. C -- Flux tight |
| 2. Blank -- Standard type | V -- Sealed type |
| N -- High sensitivity type | S -- Sealed type washable |
| 3. Blank -- Standard type | 7. Blank -- Standard type |
| L -- Low power type | E -- CTI 250V |
| 4. 1A -- Single pole normally open | 8. <input type="checkbox"/> -- Coil voltage (please refer to the coil rating data for the availability) |
| 5. Blank -- Standard type | |
| F -- Class F | |

»» Contact Rating

| Type | 835 | 835L | 835NL |
|----------------|---|-----------|---------------------------------------|
| Resistive load | 10A 240VAC 12A 120VAC ^(※) | 8A 240VAC | 5A 240VAC 8A 240VAC ^(※) |

»» Coil Rating (DC)

◆ 835 / 835L

| Rated voltage (V) | Rated current $\pm 10\%$ at 23°C (mA) | Coil resistance $\pm 10\%$ at 23°C (Ω) | Max. continuous voltage at 85°C | Pick up voltage(Max.) at 23°C | Drop out voltage(Min.) at 23°C | Power consumption at rated voltage |
|-------------------|---------------------------------------|---|---------------------------------|-------------------------------|--------------------------------|------------------------------------|
| 3 | 150 | 20 | 160 % of rated voltage | 75 % of rated voltage | 5 % of rated voltage | approx. 0.45W |
| 5 | 90.9 | 55 | | | | |
| 6 | 75 | 80 | | | | |
| 9 | 50 | 180 | | | | |
| 12 | 37.5 | 320 | | | | |
| 18 | 25 | 720 | | | | |
| 24 | 18.8 | 1280 | | | | |

◆ 835NL

| Rated voltage (V) | Rated current $\pm 10\%$ at 23°C (mA) | Coil resistance $\pm 10\%$ at 23°C (Ω) | Max. continuous voltage at 85°C | Pick up voltage(Max.) at 23°C | Drop out voltage(Min.) at 23°C | Power consumption at rated voltage |
|-------------------|---------------------------------------|---|---------------------------------|-------------------------------|--------------------------------|------------------------------------|
| 3 | 66.7 | 45 | 160 % of rated voltage | 80 % of rated voltage | 5 % of rated voltage | approx. 0.2W |
| 5 | 40.0 | 125 | | | | |
| 6 | 33.3 | 180 | | | | |
| 9 | 22.2 | 405 | | | | |
| 12 | 16.7 | 720 | | | | |
| 18 | 11.1 | 1620 | | | | |
| 24 | 8.3 | 2880 | | | | |

»» Specification

| | | |
|--------------------------------------|--|---|
| Contact material | AgSnO / AgNi alloy | |
| Contact resistance ⁽¹⁾ | 100m Ω Max. (at 1A/6VDC by 4-wire resistance measurement) | |
| Operate time ⁽¹⁾ | 10ms Max. | |
| Release time ⁽¹⁾ | 5ms Max. (for 835) | |
| | 7ms Max. (for 835L/NL) | |
| Insulation resistance ⁽¹⁾ | 100M Ω Min. (DC 500V) | |
| Dielectric strength ⁽¹⁾ | Between open contact | : AC 1000V , 50/60Hz 1 min. (for 835) : AC 750V , 50/60Hz 1 min. (for 835L/NL) |
| | Between contact and coil | : AC 2500V , 50/60Hz 1 min. |
| Vibration resistance | Operating extremes | 10~50Hz , amplitude 1.0 mm |
| | Damage limits | 10~50Hz , amplitude 1.0 mm |

| | | |
|-------------------------------|----------------------------|---|
| Shock resistance | Operating extremes | 10G |
| | Damage limits | 100G |
| Life expectancy | Mechanical | 10,000,000 ops. (frequency 18,000 ops./hr) |
| | Electrical | 100,000 ops. (※) 30,000 ops. (for 835/835NL) (frequency 900 ops./hr) |
| Operating ambient temperature | -40 ~ +85 °C (no freezing) | |
| Weight | Approx. 6 g | |

Note : (1) Initial value. Operate and release time excluding contact bounce.

»» Safety Approval

| Certified | UL/CUL | CSA | TUV | VDE |
|-----------|--------|---------|----------|----------|
| File No. | E74321 | 1474283 | R9552647 | 40010643 |

»» Safety Approval Rating

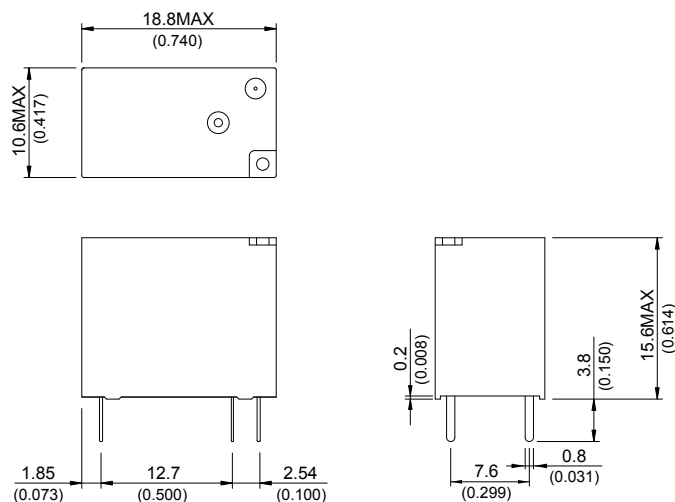
◆ 835

| UL/CUL | CSA | TUV | VDE |
|--|--------------------------------|--------------------------------|---------------------------------|
| 12A 125VAC 10A 277VAC/30VDC TV-5 | 12A 125VAC 10A 277VAC/30VDC | 12A 125VAC 10A 277VAC/30VDC | 10A 250VAC T85 4A 400VAC T85 |

◆ 835L/835NL

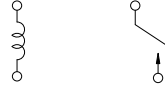
| UL / CUL | VDE |
|-------------------------------------|--------------------------------|
| 8A 277VAC 10A 125VAC 8A 30VDC | 8A 250VAC T85 4A 400VAC T85 |

»» Outline Dimensions

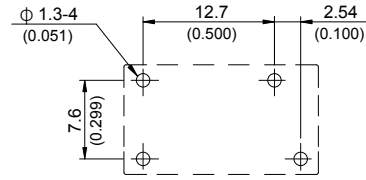


835

Wiring Diagram BOTTOM VIEW



PC Board Layout BOTTOM VIEW



Engineering Data

