

### »» Features

- Miniature 12A 125VAC, 10A 250VAC/30VDC PCB Relay.
- UL/CUL, CSA, TUV, VDE approved.
- Class F insulation system approved as standard.
- 450mW and 200mW coil are available.
- Optional for high CTI 250 plastic material (E version) and VDE approved type.
- Comply with RoHS-Directive 2002/95/EC, and ELV-Directive 2000/53/EC.

### »» 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 N L - 1A - F - C E  
 1 2 3 4 5 6 7

- |   |  |
|---|--|
| 1. 835 -- Basic series designation<br><br>2. Blank -- Standard type<br>N -- High sensitivity type<br><br>3. Blank -- Standard type<br>L -- Low power type<br><br>4. 1A -- Single pole normally open | 5. Blank -- Standard type<br>F -- Class F<br><br>6. C -- Flux tight<br>V -- Sealed type<br>S -- Sealed type washable<br><br>7. Blank -- Standard type<br>E -- CTI 250V |
|---|--|

### »» 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 ±10 % at 23 °C (mA)	Coil resistance ±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 ±10 % at 23 °C (mA)	Coil resistance ±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 <sup>(1)</sup>	100mΩ Max.	
Operate time <sup>(1)</sup>	10ms Max.	
Release time <sup>(1)</sup>	5ms Max. (for 835)	
	7ms Max. (for 835L/NL)	
Insulation resistance <sup>(1)</sup>	100MΩ Min. (DC 500V)	
Dielectric strength <sup>(1)</sup>	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 operations (frequency 18,000 operations/hr)
	Electrical	100,000 operations (※) 30,000 ops. (for 835/835NL) (frequency 900 operations/hr)
Operating ambient temperature	-40 ~ +85 °C (no freezing)	
Weight	Approx. 6 g	

Note : (1) initial value

## »» Safety Approval

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

## »» Safety Approval Rating

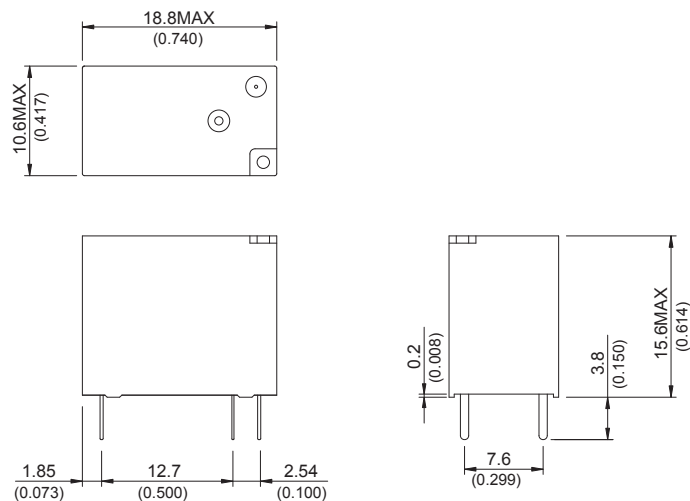
### ◆ 835

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

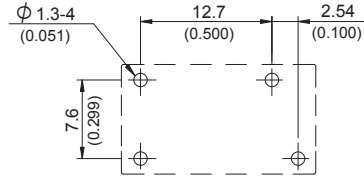
## »» Outline Dimensions



## Wiring Diagram BOTTOM VIEW



## PC Board Layout BOTTOM VIEW



## Engineering Data

