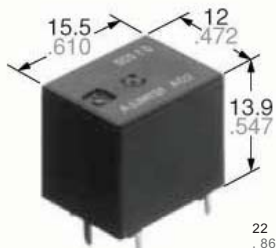


Relays & Solenoids

NAIS_PCB Relays

Detailed product specifications are available on: us.100y.com.tw

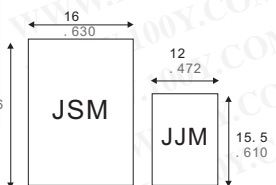


Schematic (Bottom view)

FEATURES

• Compact (half-size).

The base area is approximately half the size of conventional (JS-M) relays. The controller unit can be made more compact. Base area has been reduced by one half



• Perfect for automobile electrical systems.

Over 2 × 105 openings possible with a 14 V DC motor load, an inrush current of 25 A, and steady state current of 5 A. (N.O. side)

• Standard terminal pitch employed

The terminal array used is identical to that used in small automotive relays.

• Plastic sealed type.

Plastically sealed for automatic cleaning.

• Line-up of 1 Form A and 1 Form C.

TYPICAL APPLICATIONS

- Power windows
- Auto door lock
- Electrically powered sun roof
- Electrically powered mirror
- Cornering lamp, etc.

Characteristics

Max. operating speed (at rated load)	6 cpm	
Initial insulation resistance*9	Min. 100 MΩ (at 500 V DC)	
Shock resistance	Functional*12	Min. 100 m/s ² {10 G}
	Destructive*13	Min. 1,000 m/s ² {100 G}
Vibration resistance	Functional*14	10 Hz to 100 Hz, Min. 44.1 m/s ² {4.5 G}
	Destructive	10 Hz to 500 Hz, Min. 44.1 m/s ² {4.5 G}
Mass	Approx. 5 g .176 oz	

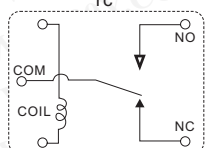
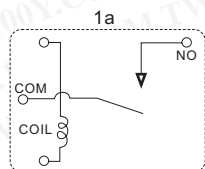
Coil

Nominal operating power	640 mW
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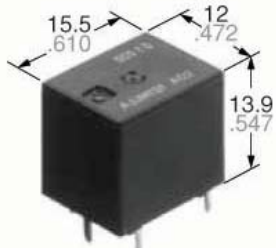
SPECIFICATIONS

Contact

Arrangement	1 Form A	
Contact material	Ag alloy (Cadmium free)	
Initial contact resistance (Initial) (By voltage drop 6V DC 1A)	Typ. 5 mΩ	
Rating (resistive load)	Nominal switching capacity	20 A 14 V DC
	Min. switching capacity*1	1 A 12 V DC
	Max. carrying current	N.O.: 35 A (12V, at 20°C 68°F for 2 minutes) 25 A (12V, at 20°C 68°F for 1 hour) 30 A (12V, at 85°C 185°F for 2 minutes) 20 A (12V, at 85°C 185°F for 1 hour)



Part No.	Product No.	Manufacturer	Description	Coil Voltage	Type
47118	JJM1a-12 V	NAIS	COMPACT SIZE AUTOMOTIVE RELAY	12V	JJ-M



FEATURES

• Small size

The smallest double make type relay 12.0(W)×15.5(L)×13.9(H) mm .472(W)×.610(L)×.547(H) inch

• Pattern design simplification

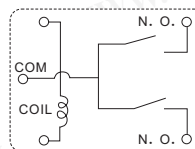
Simplified pattern design is possible because, while double make construction is employed, the external COM terminal is single.

• Standard terminal pitch employed

The terminal array used is identical to that used in JJM relays(1c type).

• Plastic sealed type

Plastically sealed for automotive cleaning.



<Schematic>

TYPICAL APPLICATIONS

Car alarm system flashing lamp etc.

SPECIFICATIONS

Contact

Arrangement	Double make contact	
Contact material	Ag alloy (Cadmium free)	
Initial contact resistance (Initial) (By voltage drop 6V DC 1A)	Typ. 10 mΩ	
Contact voltage drop	Max. 0.25V (at 2 × 6A)	
Rating	Nominal switching capacity	12A 14V DC (at 2 × 6A, lamp load)
	Max. carrying current	2 × 6A (12V, at 20°C 68°F), 2 × 4A (12V, at 85°C 185°F)
	Min. switching capacity*1	1A 12V DC

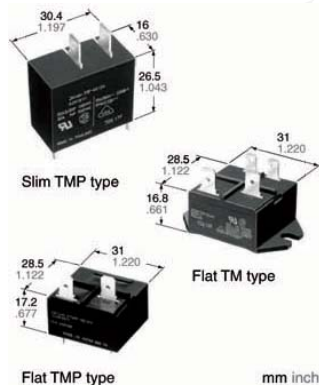
Characteristics

Max. operating speed (at nominal switching capacity)	4 cpm	
Initial insulation resistance*2	Min. 100 MΩ (at 500 V DC)	
Shock resistance	Functional*5	Min. 100 m/s ² {10 G}
	Destructive*6	Min. 1,000 m/s ² {100 G}
Vibration resistance	Functional*7	10 Hz to 100 Hz, Min. 44.1 m/s ² {4.5 G}
	Destructive*8	0 Hz to 500 Hz, Min. 44.1 m/s ² {4.5 G}
Mass	Approx. 5 g .176 oz	

Coil

Nominal operating power	1,000 mW
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Part No.	Product No.	Manufacturer	Description	Coil Voltage	Type
47119	JJM2w-12V	NAIS	DOUBLE MAKE CONTACT AUTOMOTIVE RELAY	12V	JJ-M(Double make type)



FEATURES

• Compact, high-capacity, and resistant to inductive loads

The relay is a compact 16×30.4×26.5 mm .630×1.197×1.043 inch. It can control an inductive load (cosφ = 0.7) with inrush current of 70 A and steady state current of 20 A.

• Excellent contact welding resistance

High contact pressure, a forced opening mechanism, and a forced wiping mechanism realizes an excellent contact welding resistance.

• High breakdown voltage and surge resistant relay

More than 6.4 mm .252 inch maintained for the insulation distance between contacts and coil, and the breakdown voltage between contacts and coil is 5,000 V for 1 minute. In addition, the surge resistance between contacts and coil is greater than 10,000 V.

• Resistant to external force

An absorber mechanism is used on the load terminals, giving a large improvement in characteristics variations caused by the external force during FASTON placement/removal.

• Flux resistance mechanism

The terminal area is plugged with resin to prevent flux seepage during PCB mounting. (TMP type)

• Conforms to the various safety standards

UL, CSA approved. TÜV, VDE under application.

• The line up can support economical mounting methods.

The relay are equipped with a drive terminal (coil terminal) on one side for PCBs, and a load terminal (tab terminal #250) on the reverse side. The line up includes the TM type which can be attached directly to the PCB composing a drive circuit, and the TMP type which supports economical wiring. The TMP type can also be directly attached, and a high capacity load can be wired to the tab terminal.

