

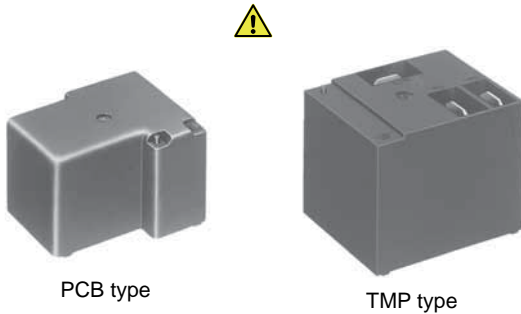
⚠ Not for new applications.



Panasonic
ideas for life

Compact economical
30 A relay

JT-N RELAYS



PCB type

TMP type

⚠ Products are not for new applications.

FEATURES

- High switching capacity — 30 A for 1 Form A
- 2 contact arrangements — 1 Form A or 1 Form C
- “TMP” types available
- UL/CSA recognized
- Class F types standard

SPECIFICATIONS

Contacts

| | | PCB & TMP type | |
|---|---------------------------------------|--|--|
| Arrangement | | 1 Form A | 1 Form C |
| Initial contact resistance, max. (By voltage drop method, 6 V DC 1 A) | | 50 mΩ | |
| Contact material | | AgSnO ₂ type | |
| Rating | Max. switching power | 8310 VA | N.C.: 2770 VA N.O.: 5540 VA |
| | Max. switching voltage | 277 V AC | |
| | Max. switching current | 30 A | N.C.: 10 A N.O.: 20 A |
| | Min. switching capacity ^{#1} | 100 mA, 5 V DC | |
| Expected life | Mechanical | Min. 1×10 ⁷ | |
| | Electrical (Resistive load) | 20 A 277 V AC Min. 1×10 ^{5*} | N.O.: 20 A 277 V AC Min. 1×10 ^{5*} N.C.: 10 A 277 V AC Min. 1×10 ^{5*} |

* The life is for open venting-hole condition.

Coil at 20°C 68°F

| | |
|-------------------------|----------------|
| Nominal operating power | Approx. 800 mW |
|-------------------------|----------------|

Characteristics

| | | PCB & TMP type | |
|---|---------------------------|---|--|
| Initial insulation resistance ^{*1} | | Min. 100 MΩ at 500 V DC | |
| Initial breakdown voltage ^{*2} | Between contacts | 1,200 Vrms | |
| | Between contacts and coil | 2,500 Vrms | |
| Operate time ^{*3} (at nominal voltage) | | Max. 20 ms | |
| Release time (without diode) ^{*3} (at nominal voltage) | | Max. 10 ms | |
| Shock resistance | Functional ^{*4} | Min. 98 m/s ² {10 G} | |
| | Destructive ^{*5} | Min. 980 m/s ² {100 G} | |
| Vibration resistance | Functional ^{*6} | Max. 88.2 m/s ² {9 G}, 10 to 55 Hz at double amplitude of 1.5 mm | |
| | Destructive | Max. 117.6 m/s ² {12 G}, 10 to 55 Hz at double amplitude of 2 mm | |
| Conditions for operation, transport and storage ^{*7} (Not freezing and condensing at low temperature) | Ambient temp. | −55°C to +85°C −67°F to +185°F | |
| | Humidity | 5 to 85% R.H. | |
| Unit weight | | PCB type: Approx. 25 g (.88 oz) TMP type: Approx. 30 g (1.06 oz) | |

#1 This value can change due to the switching frequency, environmental conditions, and desired reliability level, therefore it is recommended to check this with the actual load.

Remarks

- * Specifications will vary with foreign standards certification ratings.
- *1 Measurement at same location as “Initial breakdown voltage” section
- *2 Detection current: 10 mA
- *3 Excluding contact bounce time
- *4 Half-wave pulse of sine wave: 11ms; detection time: 10μs
- *5 Half-wave pulse of sine wave: 6ms
- *6 Detection time: 10μs
- *7 Refer to “6. Usage, Storage and Transport Conditions” in **AMBIENT ENVIRONMENT** section in Relay Technical Information.

TYPICAL APPLICATIONS

- Automotive
- Air conditioner
- Heating & ventilation
- Home appliance

ORDERING INFORMATION

JT-N Relays (PCB and TMP type)

| | | | | | | |
|-----------------------------|-------------------------|-------------------------------|-----------------|---------------------------------|---|-------|
| JTN | | 1a | S | TMP | F | DC12V |
| Contact arrangement | Protective construction | Mounting classification | Coil insulation | Coil voltage | | |
| 1a: 1 Form A 1: 1 Form C | S: Sealed type | PA: PCB type TMP: TMP type | F: Class F | DC 5, 6, 9, 12, 15, 18, 24 V | | |

Notes: 1. UL/CSA approved type is standard.
 2. Standard packing: PCB type: Carton: 50 pcs. Case: 500 pcs.
 TMP type: Carton: 50 pcs. Case: 300 pcs.

COIL DATA (at 20°C 68°F)

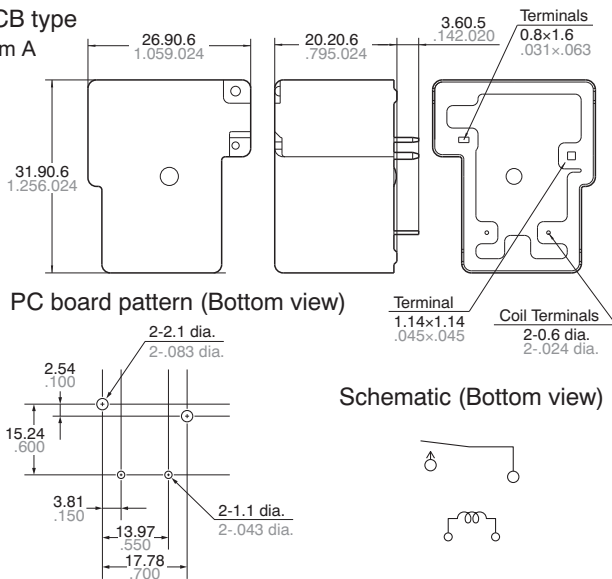
| Nominal voltage, V DC | Pick-up voltage, V DC (max.) (Initial) | Drop-out voltage, V DC (min.) (Initial) | Coil resistance, Ω (±10%) | | Nominal operating power, mW | | Max. allowable voltage, V DC (at 70°C 158°F) |
|-----------------------|--|---|---------------------------|-----------|-----------------------------|-----------|--|
| | | | PCB & TMP | PCB & TMP | PCB & TMP | PCB & TMP | |
| 5 | 3.75 | 0.5 | 31 | 800 | 6 | | |
| 6 | 4.5 | 0.6 | 45 | 800 | 7.2 | | |
| 9 | 6.75 | 0.9 | 101 | 800 | 10.8 | | |
| 12 | 9.0 | 1.2 | 180 | 800 | 14.4 | | |
| 15 | 11.25 | 1.5 | 281 | 800 | 18 | | |
| 18 | 13.5 | 1.8 | 405 | 800 | 21.6 | | |
| 24 | 18.0 | 2.4 | 720 | 800 | 28.8 | | |

DIMENSIONS (mm inch)

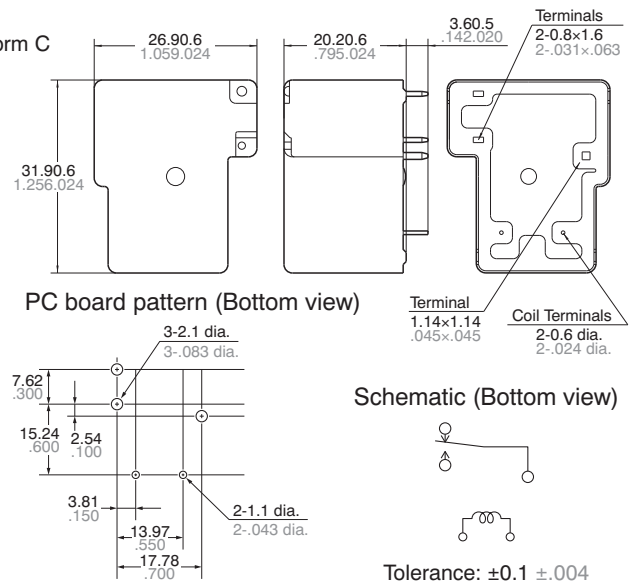
Download [CAD Data](#) from our Web site.

CAD Data

1. PCB type
1 Form A



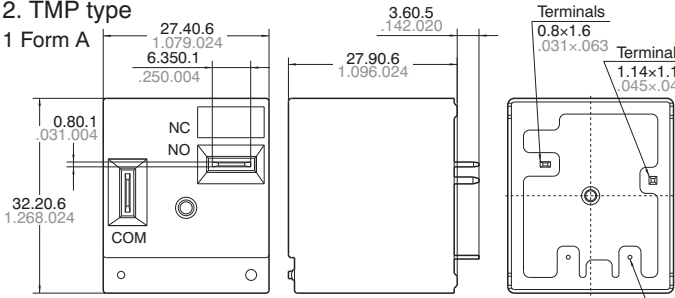
1 Form C



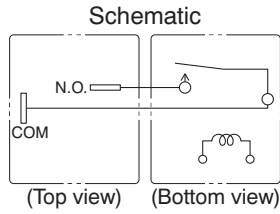
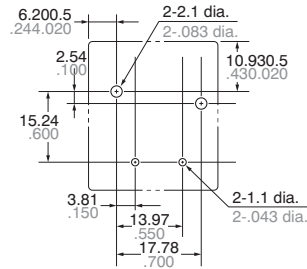
CAD Data

2. TMP type

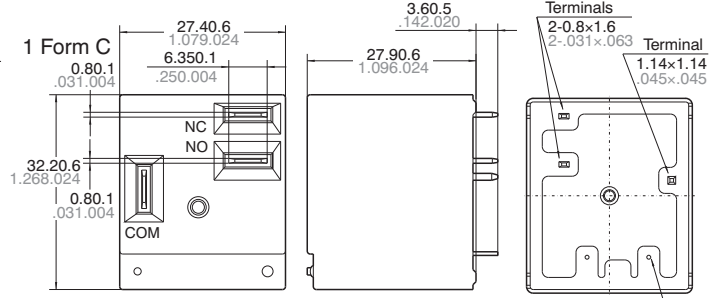
1 Form A



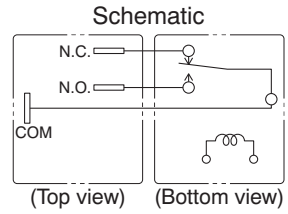
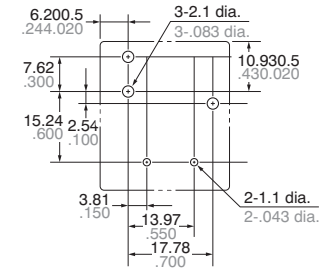
PC board pattern (Bottom view)



1 Form C



PC board pattern (Bottom view)

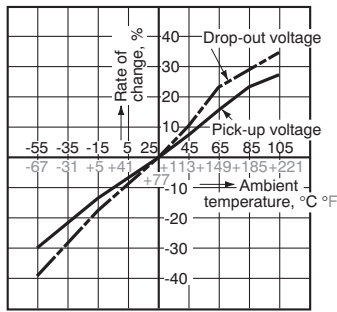


Tolerance: ±0.1 ±.004

REFERENCE DATA

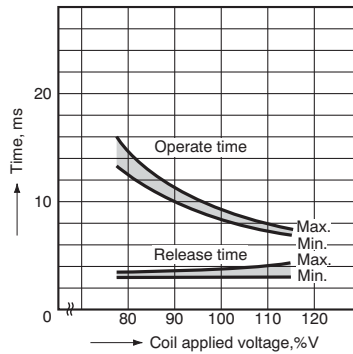
1. Change of rate of pick-up and drop-out voltage (at 20°C 68°F)

Sample: JTN1S-TMP-F-DC24V (6 pcs.)



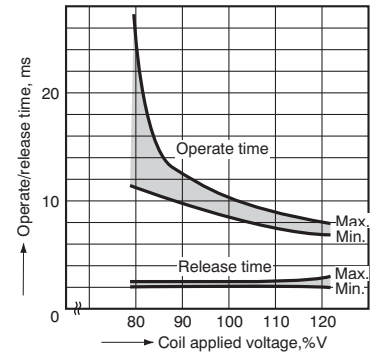
2. Operate & release time (at 20°C 68°F)

Sample: JTN1S-TMP-F-DC24V (6 pcs.)



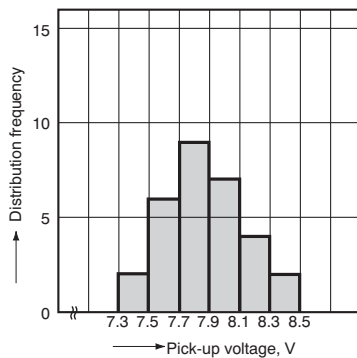
3. Operate & release time (at 20°C 68°F)

Sample: JTN1aS-TMP-F-DC24V (6 pcs.)



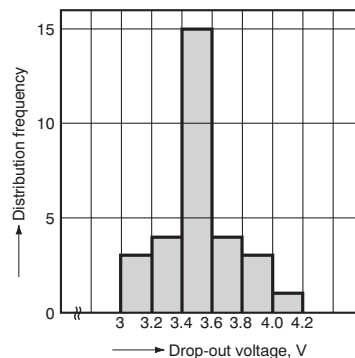
4. Distribution frequency of pick-up voltage (at 20°C 68°F)

Sample: JTN1S-TMP-F-DC12V (30 pcs.)



5. Distribution frequency of drop-out voltage (at 20°C 68°F)

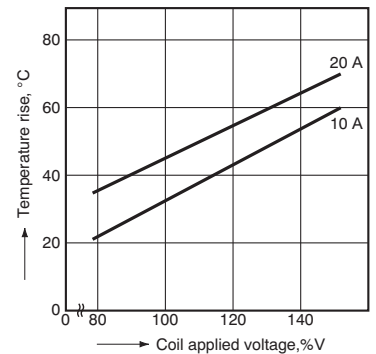
Sample: JTN1S-TMP-F-DC12V (30 pcs.)



6.-(1) Coil temperature rise (TMP type)*

Ambient temperature: 20°C 68°F

Sample: JTN1aS-TMP-F-DC12V (6 pcs.)

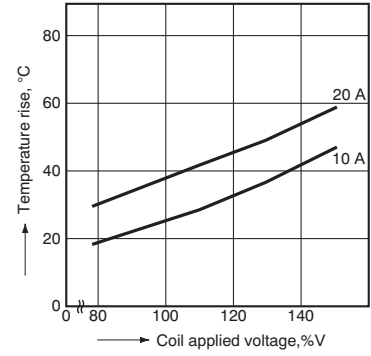
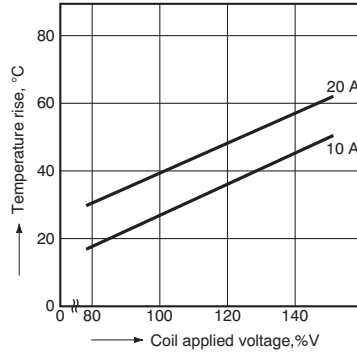
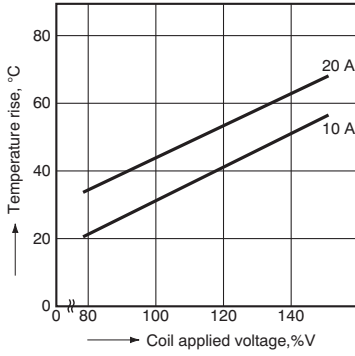


* Coil temperature rise of sealed types are same as data of the dust cover type.

Ambient temperature: 55°C 131°F
 Sample: JTN1aS-TMP-F-DC12V (6 pcs.)

Ambient temperature: 85°C 185°F
 Sample: JTN1aS-TMP-F-DC12V (6 pcs.)

Ambient temperature: 105°C 221°F
 Sample: JTN1aS-TMP-F-DC12V (6 pcs.)



SAFETY STANDARDS

| Item | UL/C-UL (Recognized) | | |
|----------|----------------------|--|--|
| | File No. | Contact rating | |
| 1 Form A | E43028 | 30A 277V AC, 30A 28V DC, 2HP 250V AC | |
| 1 Form C | N.O. | 20A 277V AC, 20A 28V DC, 2HP 250V AC | |
| | N.C. | 10A 277V AC, 10A 28V DC, 1/2HP 250V AC | |

* CSA standard: Certified by C-UL

For Cautions for Use, see [Relay Technical Information](#).

单击下面可查看定价，库存，交付和生命周期等信息

[>>Panasonic\(松下\)](#)