

# Panasonic

## SMALL PACKAGE

# GN RELAYS

### SLIM POLARIZED RELAY

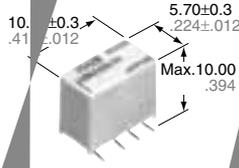
#### FE

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#### CON

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istance, max.

6 V DC 1A )

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Nominal switching

(resistive load)

Max. switching p

(resistive load)

Max. switching

Max. switching

Min. switching

Nominal operating power

Single side s

1 coil latch

Mechanic

Expected life (in. operations)

Electrical

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## TYPICAL APPLICATIONS

- Communications (XDSL, Transmission)
- Measurement
- Security
- Home appliances, and audio/visual equipment
- Automotive equipment
- Medical equipment

## ORDERING INFORMATION

Ex. AGN 2 0 0 A 1 H Z

Contact arrangement	Operating function	Type of operation	Terminal shape	Coil voltage (DC)		Packing style
2: 2 Form C	0: Single side stable 1: 1 coil latching	0: Standard type (B.B.M.)	Nil: Standard PC board terminal A: Surface-mount terminal A type S: Surface-mount terminal S type	1H: 1.5V 03: 3V 4H: 4.5V 06: 6V	09: 9V 12: 12V 24: 24V	Nil: Tube packing Z: Tape and reel packing (picked from 5/6/7/8 pin side)

Note: Tape and reel packing symbol “-Z” is not marked on the relay. “X” type tape and reel packing (picked from 1/2/3/4-pin side) is also available. Suffix “X” instead of “Z”.

## TYPES AND COIL DATA (at 20°C 68°F)

### (1) Standard PC board terminal

Operating Function	Part No.	Coil Rating, V DC	Pick-up voltage, V DC (max.) (initial)	Drop-out voltage, V DC (min.) (initial)	Nominal operating current, mA (±10%)	Coil resistance, Ω (±10%)	Nominal operating power, mW	Max. allowable voltage, V DC
	Standard PC board terminal							
Single side stable	AGN2001H	1.5	1.13	0.15	93.8	16	140	2.25
	AGN20003	3	2.25	0.3	46.7	64.2	140	4.5
	AGN2004H	4.5	3.38	0.45	31	145	140	6.75
	AGN20006	6	4.5	0.6	23.3	257	140	9
	AGN20009	9	6.75	0.9	15.5	579	140	13.5
	AGN20012	12	9	1.2	11.7	1,028	140	18
	AGN20024	24	18	2.4	9.6	2,504	230	28.8
Operating Function	Part No.	Coil Rating, V DC	Set voltage, V DC (max.) (initial)	Reset voltage, V DC (max.) (initial)	Nominal operating current, mA (±10%)	Coil resistance, Ω (±10%)	Nominal operating power, mW	Max. allowable voltage, V DC
	Standard PC board terminal							
1 coil latching	AGN2101H	1.5	1.13	1.13	66.7	22.5	100	2.25
	AGN21003	3	2.25	2.25	33.3	90	100	4.5
	AGN2104H	4.5	3.38	3.38	22.2	202.5	100	6.75
	AGN21006	6	4.5	4.5	16.7	360	100	9
	AGN21009	9	6.75	6.75	11.1	810	100	13.5
	AGN21012	12	9	9	8.3	1,440	100	18
	AGN21024	24	18	18	5.0	4,800	120	36

1) Standard packing: Tube: 50 pcs.; Case: 1,000 pcs.

2) Specified value of pick-up, drop-out, set and reset voltage is with the condition of square wave coil pulse.

### (2) Surface-mount terminal

Operating Function	Part No.		Coil Rating, V DC	Pick-up voltage, V DC (max.) (initial)	Drop-out voltage, V DC (min.) (initial)	Nominal operating current, mA (±10%)	Coil resistance, Ω (±10%)	Nominal operating power, mW	Max. allowable voltage, V DC
	Tube packing	Tape and reel packing							
Single side stable	AGN200○1H	AGN200○1HZ	1.5	1.13	0.15	93.8	16	140	2.25
	AGN200○03	AGN200○03Z	3	2.25	0.3	46.7	64.2	140	4.5
	AGN200○4H	AGN200○4HZ	4.5	3.38	0.45	31	145	140	6.75
	AGN200○06	AGN200○06Z	6	4.5	0.6	23.3	257	140	9
	AGN200○09	AGN200○09Z	9	6.75	0.9	15.5	579	140	13.5
	AGN200○12	AGN200○12Z	12	9	1.2	11.7	1,028	140	18
	AGN200○24	AGN200○24Z	24	18	2.4	9.6	2,504	230	28.8

○: For each surface-mounted terminal variation, input the following letter.

A type: A, S type: S

1) Standard packing: Tube: 50 pcs.; Case: 1,000 pcs.

Tape and reel: 500 pcs.; Case: 1,000 pcs.

2) Specified value of pick-up, drop-out, set and reset voltage is with the condition of square wave coil pulse.

# GN (AGN)

Operating Function	Part No.		Coil Rating, V DC	Set voltage, V DC (max.) (initial)	Reset voltage, V DC (max.) (initial)	Nominal operating current, mA ( $\pm 10\%$ )	Coil resistance, $\Omega$ ( $\pm 10\%$ )	Nominal operating power, mW	Max. allowable voltage, V DC
	Tube packing	Tape and reel packing							
1 coil latching	AGN21001H	AGN21001HZ	1.5	1.13	1.13	66.7	22.5	100	2.25
	AGN210003	AGN210003Z	3	2.25	2.25	33.3	90	100	4.5
	AGN21004H	AGN21004HZ	4.5	3.38	3.38	22.2	202.5	100	6.75
	AGN210006	AGN210006Z	6	4.5	4.5	16.7	360	100	9
	AGN210009	AGN210009Z	9	6.75	6.75	11.1	810	100	13.5
	AGN210012	AGN210012Z	12	9	9	8.3	1,440	100	18
	AGN210024	AGN210024Z	24	18	18	5.0	4,800	120	36

○: For each surface-mounted terminal variation, input the following letter.

A type: A, S type: S

1) Standard packing: Tube: 50 pcs.; Case: 1,000 pcs.

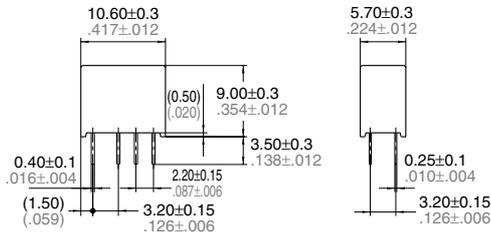
Tape and reel: 500 pcs.; Case: 1,000 pcs.

2) Specified value of pick-up, drop-out, set and reset voltage is with the condition of square wave coil pulse.

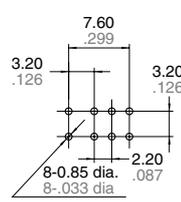
## DIMENSIONS

mm inch

### 1. PC board terminal

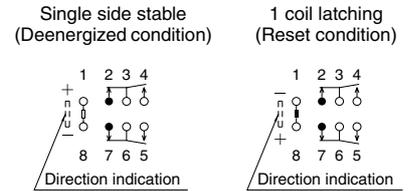


### PC board pattern



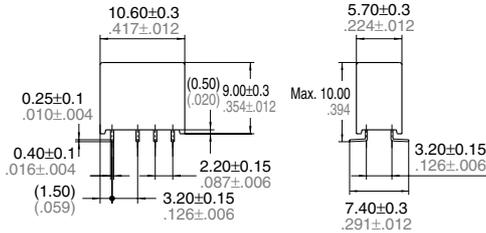
Tolerance:  $\pm 0.1 \pm .004$

### Schematic (Bottom view)

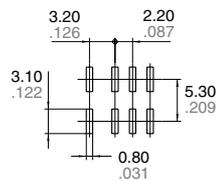


### 2. Surface-mount terminal

#### 1) A type



### Suggested mounting pad



Tolerance:  $\pm 0.1 \pm .004$

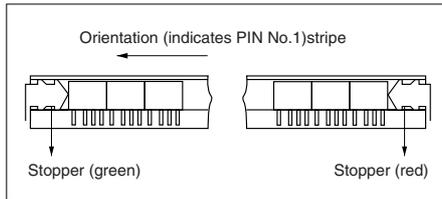
#### 1) S type

## REFERENCE DATA

## NOTES

### 1. Packing style

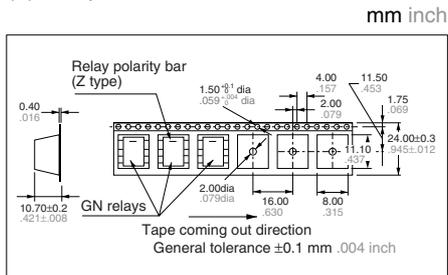
1) The relay is packed in a tube with the relay orientation mark on the left side, as shown in the figure below.



### 2) Tape and reel packing

#### (A type)

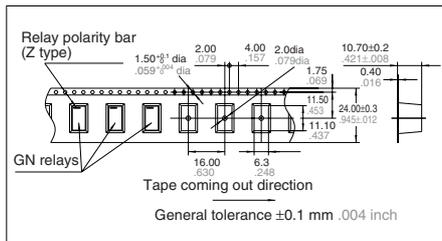
#### (1)-1 Tape dimensions



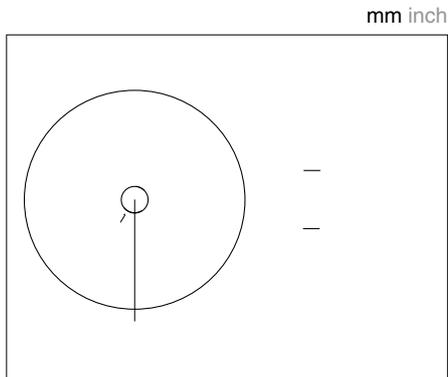
Please chuck the portion.  
Avoid chucking the center of the relay.  
In addition, excessive chucking pressure to the pinpoint of the relay should be avoided.

#### (S type)

#### (1)-2 Tape dimensions



### (2) Dimensions of plastic peel



For Contact