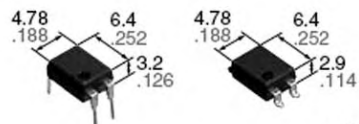


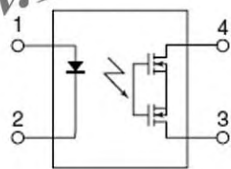
Relays & Solenoids

NAIS_PCB Relays

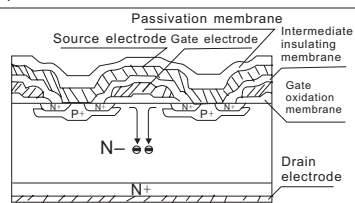
Detailed product specifications are available on: us.100y.com.tw



(Height includes standoff)



Cross section of the normally-closed type of power MOS



FEATURES

1. 60V type couples high capacity (0.55A) with low on-resistance (1Ω)

Item	GU-E type	
	Part No.	AQY410EH
Load voltage	350V	60V
Continuous load current	0.13A	0.55A
ON resistance (typ.)	18Ω	1Ω

2. This is the low-cost version PhotoMOS 1 Form B output type relay.

The attainment of economical pricing will broaden its market even further.

3. Normally closed type (1 Form B) is low on-resistance.

(All AQ○4 PhotoMOS are Form B types. And also the Form A types have a low on-resistance.)

This has been realized thanks to the built-in MOSFET processed by our proprietary method, DSD (Double-diffused and Selective Doping) method. Cross section of the normally-closed type of power MOS

4. Reinforced insulation 5,000 V type

More than 0.4 mm internal insulation distance between inputs and outputs. Conforms to EN41003, EN60950 (reinforced insulation).

5. Compact 4-pin DIP size

The device comes in a compact (W)6.4×(L)4.78×(H)3.2mm (W).252×(L).188×(H).126 inch, 4-pin DIP size

6. Controls low-level analog signals

PhotoMOS relays feature extremely low closed-circuit offset voltage to enable control of low-level analog signals without distortion.

7. High sensitivity, low ON resistance

Can control a maximum 0.13 A load current with a 5 mA input current. Low ON resistance of 18Ω (AQY410EH). Stable operation because there are no metallic contact parts.

6. Low-level off-state leakage current

TYPICAL APPLICATIONS

- Power supply
- Measuring equipment
- Security equipment
- Modem
- Telephone equipment
- Electricity, plant equipment
- Sensors



Part No.	Product No.	Manufacturer	Description	Contact Arrangement	Contact Rating	Coil Voltage	Recognized Safety	Outline L*W*H	Type
47303	AQY410EH	NAIS	NAIS_GU-E PhotoMOS RELAY	1 Form B	350V / 130mA	350V	UL(E43149),BSI,C-UL	(W)6.4×(L)4.78×(H)3.2mm	AQY410EH
47302	AQY412EH	NAIS	NAIS_GU-E PhotoMOS RELAY	1 Form B	60V / 550mA	60V	UL(E43149),BSI,C-UL	(W)6.4×(L)4.78×(H)3.2mm	AQY412EH
47304	AQY414EH	NAIS	NAIS_GU-E PhotoMOS RELAY	1 Form B	400V / 120mA	400V	UL(E43149),BSI,C-UL	(W)6.4×(L)4.78×(H)3.2mm	AQY414EH

FEATURES

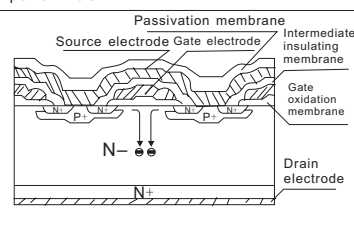
1. 60V type couples high capacity (0.5A) with low on-resistance (1Ω).

Item	GU SOP type	
	Part No.	AQY410S
Load voltage	350V	60V
Continuous load current	0.12A	0.5A
ON resistance (typ.)	18Ω	1Ω

2. SO package 4-pin type in super miniature design

The device comes in a super-miniature SO package 4-pin type measuring (W) 4.3×(L) 4.4×(H) 2.1 mm (W) .169×(L) .173×(H) .083 inch —approx. 70% of the volume and 70% of the footprint size of SO package 6-pin type PhotoMOS relays.

Cross section of the normally-closed type of power MOS



3. Tape and reel

The device comes standard in a tape and reel (1,000 pcs./reel) to facilitate automatic insertion machines.

4. Controls low-level analog signals

PhotoMOS relays feature extremely low closed-circuit offset voltage to enable control of low-level analog signals without distortion.

5. Low-level off-state leakage current

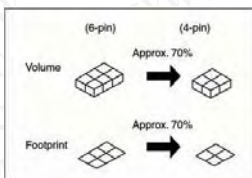
In contrast to the SSR with an off-state leakage current of several milliamperes, the PhotoMOS relay features a very small off state leakage current of 1nA even with the rated load voltage of 400 V (AQY414S).

TYPICAL APPLICATIONS

- Security equipment
- Power supply
- Telephone equipment
- Measuring equipment
- Sensors

2. Normally closed type (1 Form B) is low on-resistance. (All AQ○4 PhotoMOS are Form B types. And also the Form A types have a low on-resistance.)

This has been realized thanks to the built-in MOSFET processed by our proprietary method, DSD (Double-diffused and Selective Doping) method.



Part No.	Product No.	Manufacturer	Description	Contact Arrangement	Contact Rating	Coil Voltage	Recognized Safety	Type
47221	AQY410S	NAIS	NAIS_GU PhotoMOS Relay	1 Form B	350V / 120mA	350V	UL,C-UL,BSI	AQY410S
47219	AQY412S	NAIS	NAIS_GU PhotoMOS Relay	1 Form B	60V / 500mA	60V	UL,C-UL,BSI	AQY412S
47222	AQY414S	NAIS	NAIS_GU PhotoMOS Relay	1 Form B	400V / 100mA	400V	UL,C-UL,BSI	AQY414S

FEATURES

1. High capacity PhotoMOS Relay in a compact and slim 4-pin SIL
 2. Extremely low ON resistance
 3. Control low-level signal
- Power Photo MOS relays feature extremely low closed-circuit offset voltage to enable control of low-level analog signals without distortion.
4. Low-level off state leakage current
 5. High I/O isolation voltage 2,500 V
 6. Eliminates the need for a counter electromotive protection diode in the drive circuit on the input side

7. Eliminate the need for a power supply to drive the power MOSFET

8. PC board layout is simplified

9. No restriction on mounting direction

10. Varistor incorporated type is also available.

