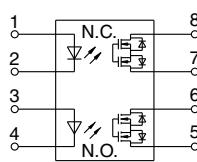
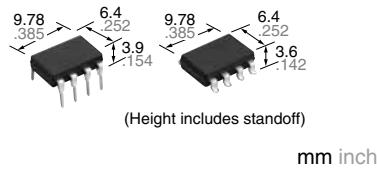




**Both N.O. and N.C. contacts
incorporated in a
DIP8-pin package**

**PhotoMOS®
GU 1 Form A & 1 Form B
(AQW614)**



FEATURES

1. Approx. 1/2 the space compared with the mounting of a set of 1 Form A and 1 Form B PhotoMOS
2. Applicable for 1 Form A and 1 Form B use as well as two independent 1 Form A and 1 Form B use
3. Controls load currents up to 0.13 A with 5 mA input current
4. Extremely low closed-circuit offset voltages to enable control of small analog signals without distortion
5. Stable on-resistance

TYPICAL APPLICATIONS

- High-speed inspection machines
- Telephone equipment
- Computers
- Sensing equipment

RoHS compliant

TYPES

Load voltage	Load current	Package	Part No.				Packing quantity		
			Through hole terminal		Surface-mount terminal				
			Tube packing style		Tape and reel packing style	Picked from the 1/2/3-pin side	Picked from the 4/5/6-pin side	Tube	Tape and reel
AC/DC dual use	400 V	100 mA	DIP8-pin	AQW614	AQW614A	AQW614AX	AQW614AZ	1 tube contains: 50 pcs. 1 batch contains: 500 pcs.	1,000 pcs.

*Indicate the peak AC and DC values.

Note: The surface mount terminal shape indicator "A" and the packing style indicator "X" or "Z" are not marked on the device.

RATING

1. Absolute maximum ratings (Ambient temperature: 25°C 77°F)

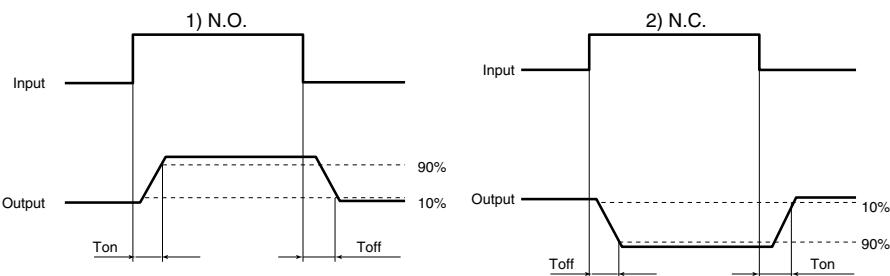
Item		Symbol	AQW614(A)	Remarks
Input	LED forward current	I _F	50 mA	
	LED reverse voltage	V _R	5 V	
	Peak forward current	I _{FP}	1 A	f = 100 Hz, Duty factor = 0.1%
	Power dissipation	P _{in}	75 mW	
Output	Load voltage (peak AC)	V _L	400 V	
	Continuous load current	I _L	0.1 A (0.13 A)	Peak AC, DC (): in case of using only 1a or 1b, 1 channel
	Peak load current	I _{peak}	0.3 A	100 ms (1 shot), V _L = DC
	Power dissipation	P _{out}	800 mW	
Total power dissipation		P _T	850 mW	
I/O isolation voltage		V _{iso}	1,500 Vrms	Between input and output/between contact sets
Ambient temperature	Operating	T _{opr}	-40 to +85°C -40 to +185°F	(Non-icing at low temperatures)
	Storage	T _{stg}	-40 to +100°C -40 to +212°F	

GU 1 Form A & 1 Form B (AQW614)

2. Electrical characteristics (Ambient temperature: 25°C 77°F)

Item			Symbol	AQW614(A)	Condition
Input	LED operate current	Typical	I_{Fon} (N.O.) I_{Foff} (N.C.)	0.9 mA	$I_L = 100 \text{ mA}$
		Maximum		3 mA	
	LED reverse current	Minimum	I_{Foff} (N.O.) I_{Fon} (N.C.)	0.4 mA	$I_L = 100 \text{ mA}$
		Typical		0.8 mA	
Output	LED dropout voltage	Typical	V_F	1.25 V (1.14 V at $I_F = 5 \text{ mA}$)	$I_F = 50 \text{ mA}$
		Maximum		1.5 V	
	On resistance	Typical	R_{on}	27 Ω	$I_F = 5 \text{ mA (N.O.)}$ $I_F = 0 \text{ mA (N.C.)}$ $I_L = 100 \text{ mA}$ within 1 s
		Maximum		50 Ω	
Transfer characteristics	Off state leakage current	Maximum	I_{Leak}	1 μA	$I_F = 0 \text{ mA (N.O.)}$ $I_F = 5 \text{ mA (N.C.)}$ $V_L = 400 \text{ V}$
	Operate time*	Typical	T_{on} (N.O.)	0.28 ms (N.O.) 0.43 ms (N.C.)	$I_F = 0 \text{ mA} \rightarrow 5 \text{ mA}$ $I_L = 100 \text{ mA}$
		Maximum	T_{off} (N.C.)	1 ms	
	Reverse time*	Typical	T_{off} (N.O.)	0.04 ms (N.O.) 0.3 ms (N.C.)	$I_F = 5 \text{ mA} \rightarrow 0 \text{ mA}$ $I_L = 100 \text{ mA}$
		Maximum	T_{on} (N.C.)	1 ms	
I/O capacitance	Typical		C_{iso}	0.8 pF	$f = 1 \text{ MHz}$ $V_b = 0 \text{ V}$
	Maximum			1.5 pF	
Initial I/O isolation resistance	Minimum		R_{iso}	1,000 MΩ	500 V DC

*Operate/Reverse time



3. Recommended operating conditions (Ambient temperature: 25°C 77°F)

Please use under recommended operating conditions to obtain expected characteristics.

Item	Symbol	Number of used channels	Min.	Max.	Unit
LED current	I_F	AQW614(A)	5	30	mA
Load voltage (Peak AC)	V_L		—	320	V
Continuous load current	I_L		1ch 2ch	0.13 0.1	A

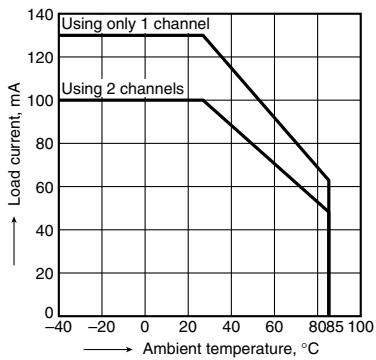
■ These products are not designed for automotive use.

If you are considering to use these products for automotive applications, please contact your local Panasonic Corporation technical representative.

REFERENCE DATA

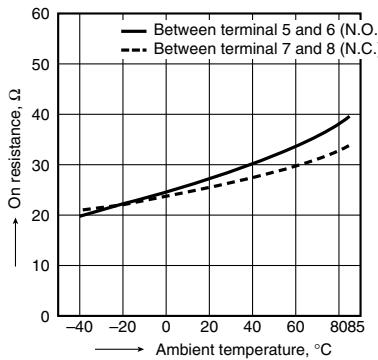
1. Load current vs. ambient temperature characteristics

Allowable ambient temperature: -40 to $+85^{\circ}\text{C}$
 -40 to $+185^{\circ}\text{F}$



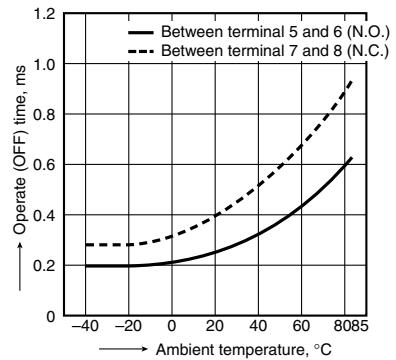
2. On resistance vs. ambient temperature characteristics

Measured portion: between terminals 5 and 6, 7 and 8;
LED current: 5 mA; Load voltage: 400 V (DC);
Continuous load current: 100 mA (DC)



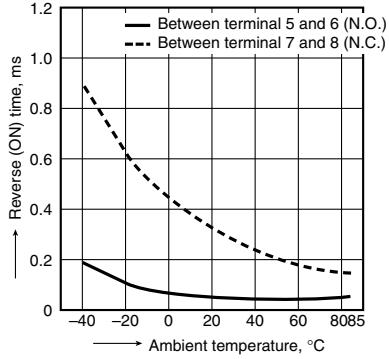
3. Operate time vs. ambient temperature characteristics

LED current: 5 mA;
Load voltage: 400 V (DC);
Continuous load current: 100 mA (DC)



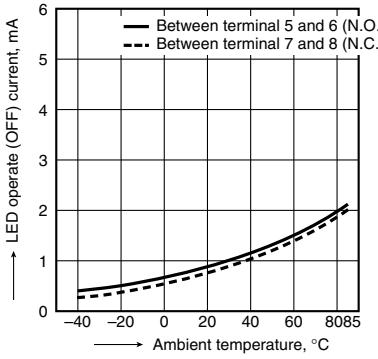
4. Reverse time vs. ambient temperature characteristics

LED current: 5 mA; Load voltage: 400 V (DC);
Continuous load current: 100 mA (DC)



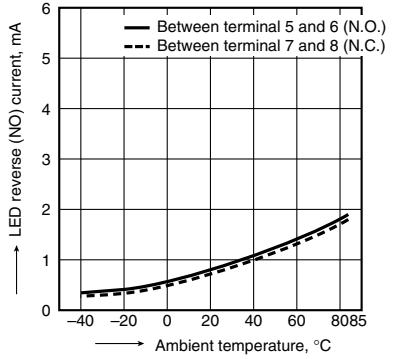
5. LED operate current vs. ambient temperature characteristics

Load voltage: 400 V (DC);
Continuous load current: 100 mA (DC)



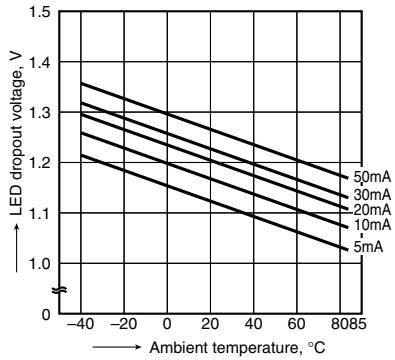
6. LED reverse current vs. ambient temperature characteristics

Load voltage: 400 V (DC);
Continuous load current: 100 mA (DC)



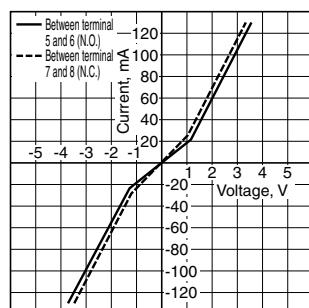
7. LED dropout voltage vs. ambient temperature characteristics

LED current: 5 to 50 mA



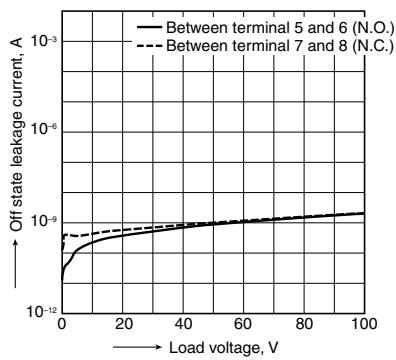
8. Current vs. voltage characteristics of output at MOS portion

Measured portion: between terminals 5 and 6, 7 and 8;
Ambient temperature: 25°C 77°F



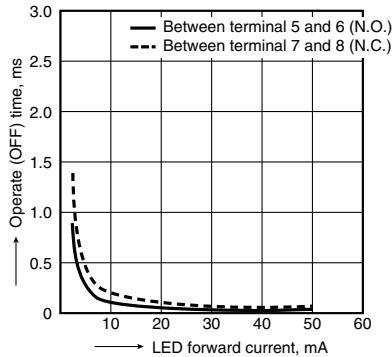
9. Off state leakage current vs. load voltage characteristics

Measured portion: between terminals 5 and 6, 7 and 8;
Ambient temperature: 25°C 77°F



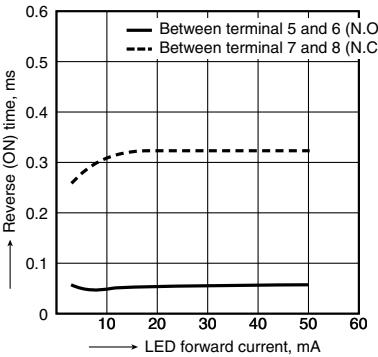
10. Operate time vs. LED forward current characteristics

Measured portion: between terminals 5 and 6, 7 and 8;
Load voltage: 400 V (DC); Continuous load current:
100 mA (DC); Ambient temperature: 25°C 77°F



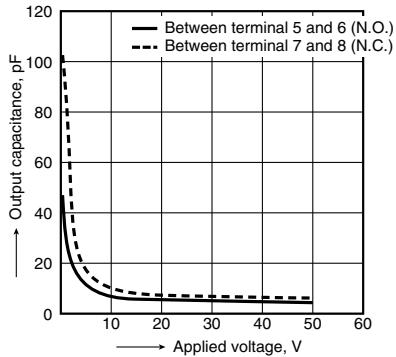
11. Reverse time vs. LED forward current characteristics

Measured portion: between terminals 5 and 6, 7 and 8;
Load voltage: 400 V (DC); Continuous load current:
100 mA (DC); Ambient temperature: 25°C 77°F



12. Output capacitance vs. applied voltage characteristics

Measured portion: between terminals 5 and 6, 7 and 8;
LED current: 0 mA (N.O.), 5 mA (N.C.); Frequency:
1 MHz; Ambient temperature: 25°C 77°F



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ИНН 7805602321 КПП 780501001 Р/С 40702810122510004610 ФАКБ "АБСОЛЮТ БАНК" (ЗАО) в г.Санкт-Петербурге К/С 30101810900000000703 БИК 044030703

Компания «Life Electronics» занимается поставками электронных компонентов импортного и отечественного производства от производителей и со складов крупных дистрибуторов Европы, Америки и Азии.

С конца 2013 года компания активно расширяет линейку поставок компонентов по направлению коаксиальный кабель, кварцевые генераторы и конденсаторы (керамические, пленочные, электролитические), за счёт заключения дистрибуторских договоров

Мы предлагаем:

- Конкурентоспособные цены и скидки постоянным клиентам.
- Специальные условия для постоянных клиентов.
- Подбор аналогов.
- Поставку компонентов в любых объемах, удовлетворяющих вашим потребностям.
- Приемлемые сроки поставки, возможна ускоренная поставка.
- Доставку товара в любую точку России и стран СНГ.
- Комплексную поставку.
- Работу по проектам и поставку образцов.
- Формирование склада под заказчика.
- Сертификаты соответствия на поставляемую продукцию (по желанию клиента).
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- Поставку компонентов, требующих военную и космическую приемку.
- Входной контроль качества.
- Наличие сертификата ISO.

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- Регистрацию проекта у производителя компонентов.
- Техническую поддержку проекта.
- Защиту от снятия компонента с производства.
- Оценку стоимости проекта по компонентам.
- Изготовление тестовой платы монтаж и пусконаладочные работы.



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