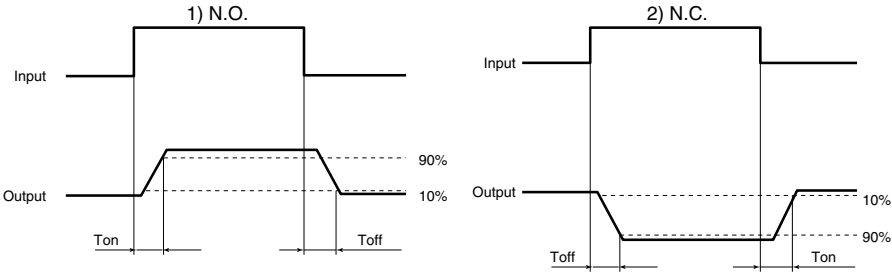


2. Electrical characteristics (Ambient temperature: 25°C 77°F)

Item			Symbol	AQW614(A)	Condition	
Input	LED operate current	Typical	I _{Fon} (N.O.)	0.9 mA	I _L = 100 mA	
		Maximum	I _{Foff} (N.C.)	3 mA		
	LED reverse current	Minimum	I _{Foff} (N.O.)	0.4 mA	I _L = 100 mA	
		Typical	I _{Fon} (N.C.)	0.8 mA		
	LED dropout voltage	Typical	V _F	1.25 V (1.14 V at I _F = 5 mA)		I _F = 50 mA
		Maximum		1.5 V		
Output	On resistance	Typical	R _{on}	27 Ω	I _F = 5 mA (N.O.) I _F = 0 mA (N.C.)	
		Maximum		50 Ω	I _L = 100 mA within 1 s	
	Off state leakage current	Maximum	I _{Leak}	1 μA	I _F = 0 mA (N.O.) I _F = 5 mA (N.C.) V _L = 400 V	
	Transfer characteristics	Operate time*	Typical	T _{on} (N.O.)	0.28 ms (N.O.) 0.43 ms (N.C.)	
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 mA → 0 mA I _L = 100 mA
		Maximum	T _{on} (N.C.)	1 ms		
I/O capacitance		Typical	C _{iso}	0.8 pF		f = 1 MHz
		Maximum		1.5 pF		V _B = 0 V
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.

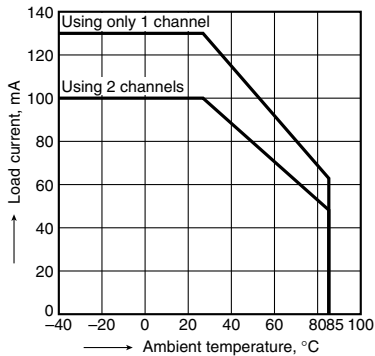
Item		Symbol	Number of used channels	Min.	Max.	Unit
AQW614(A)	LED current	I _F		5	30	mA
	Load voltage (Peak AC)	V _L		—	320	V
	Continuous load current	I _L		—	0.13 0.1	A

■ 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

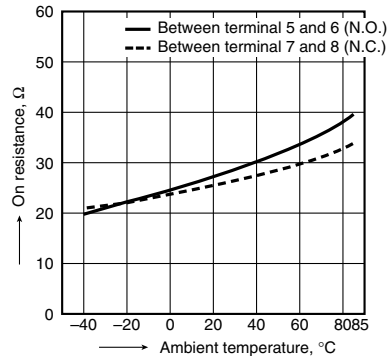
1. Load current vs. ambient temperature characteristics

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



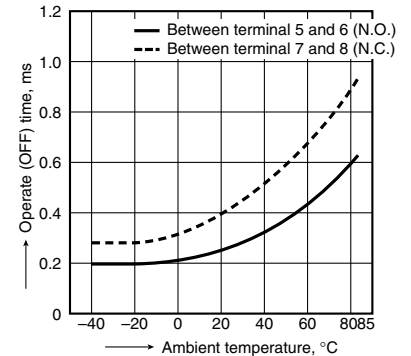
2. On resistance vs. ambient temperature characteristics

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)



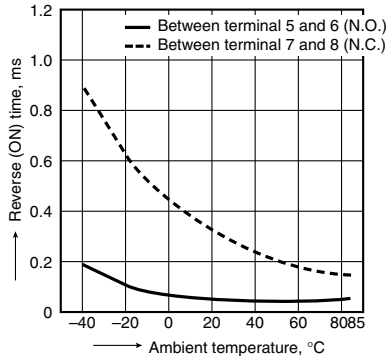
3. Operate time vs. ambient temperature characteristics

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



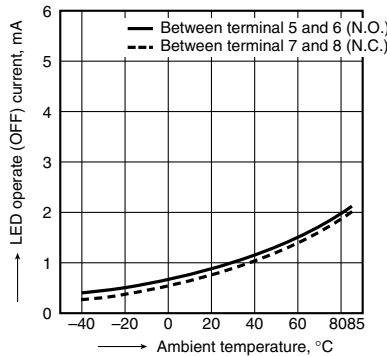
4. Reverse time vs. ambient temperature characteristics

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



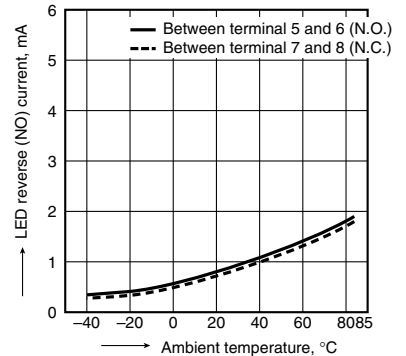
5. LED operate current vs. ambient temperature characteristics

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



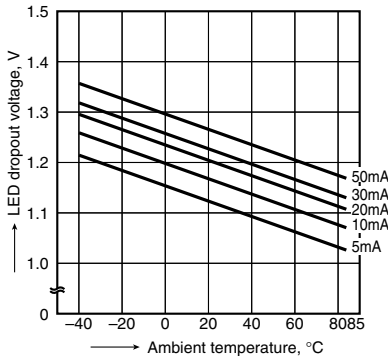
6. LED reverse current vs. ambient temperature characteristics

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



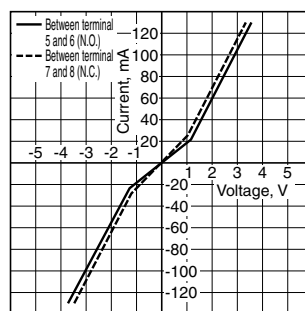
7. LED dropout voltage vs. ambient temperature characteristics

LED current: 5 to 50 mA



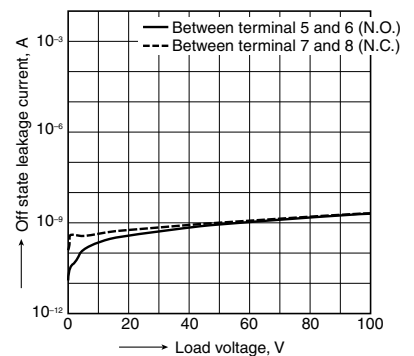
8. Current vs. voltage characteristics of output at MOS portion

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



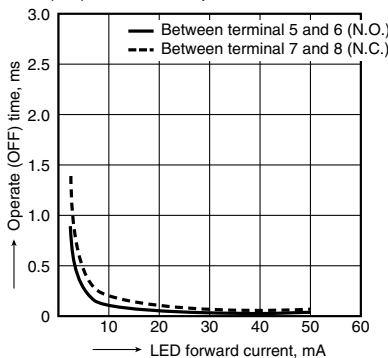
9. Off state leakage current vs. load voltage characteristics

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



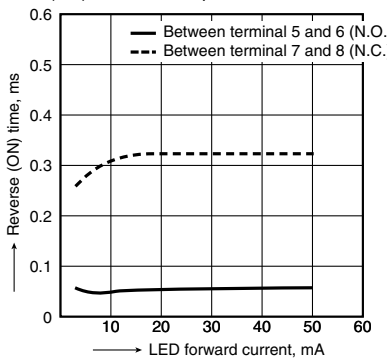
10. Operate time vs. LED forward current characteristics

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



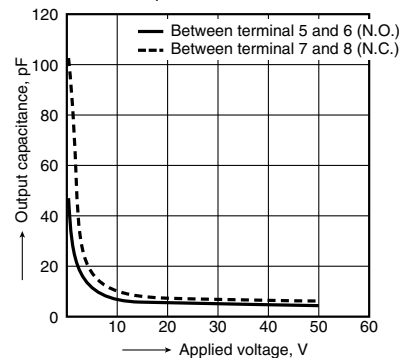
11. Reverse time vs. LED forward current characteristics

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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ASCTB52E 201703-T

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