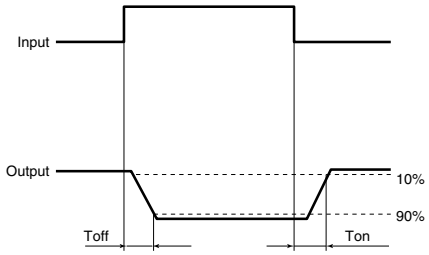
2. Electrical characteristics (Ambient temperature: 25°C 77°F)

Item			Symbol	AQW414EH(A)	Condition
Input	LED operate (OFF) current	Typical	I_{Foff}	1.3mA	I_L=Max.
		Maximum		3.0mA	
	LED reverse (ON) current	Minimum	I_{Fon}	0.4mA	I_L=Max.
		Typical		1.2mA	
	LED dropout voltage	Typical	V_F	1.25 (1.14 V at I_F=5mA)	I_F=50mA
		Maximum		1.5V	
Output	On resistance	Typical	R_{on}	26Ω	I_F=0mA I_L=Max. Within 1 s
		Maximum		35Ω	
	Off state leakage current	Maximum	I_{Leak}	10μA	I_F=5mA V_L=Max.
Transfer characteristics	Operate (OFF) time*	Typical	T_{off}	0.8ms	I_F=0mA→5mA I_L=Max.
		Maximum		3.0ms	
	Reverse (ON) time*	Typical	T_{on}	0.2ms	I_F=5mA→0mA I_L=Max.
		Maximum		1.0ms	
	I/O capacitance	Typical	C_{iso}	0.8pF	f =1MHz V_B =0V
		Maximum		1.5pF	
	Initial I/O isolation resistance	Minimum	R_{iso}	1,000MΩ	500V DC

*Operate/Reverse time



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

Please use under recommended operating conditions to obtain expected characteristics.

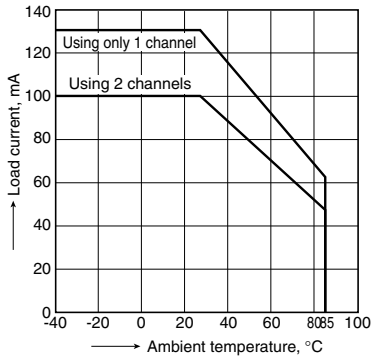
Item		Symbol	Number of used channels	Min.	Max.	Unit
LED current		I_F		5	30	mA
AQW414EH(A)	Load voltage (Peak AC)	V_L		—	320	V
	Continuous load current	I_L	1ch 2ch	—	0.13 0.1	A

■ **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

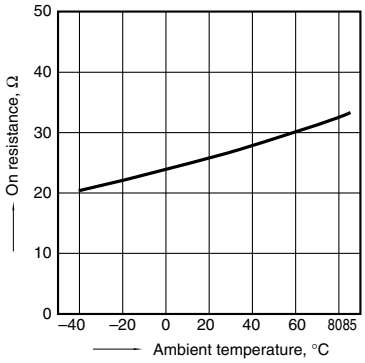
1. Load current vs. ambient temperature characteristics

Allowable ambient temperature: –40 to +85°C
–40 to +185°F



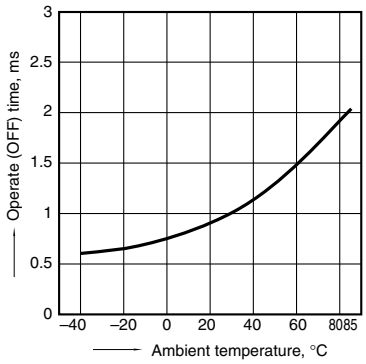
2. On resistance vs. ambient temperature characteristics

Measured portion: between terminals 5 and 6, 7 and 8;
LED current: 0 mA; Load voltage: Max. (DC);
Continuous load current: Max. (DC)



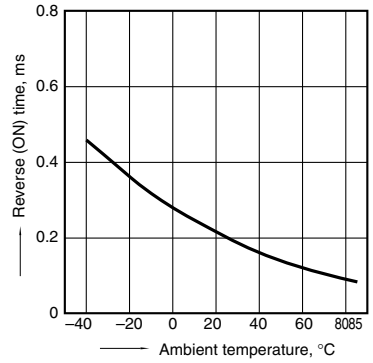
3. Operate (OFF) time vs. ambient temperature characteristics

LED current: 5 mA; Load voltage: Max. (DC);
Continuous load current: Max. (DC)



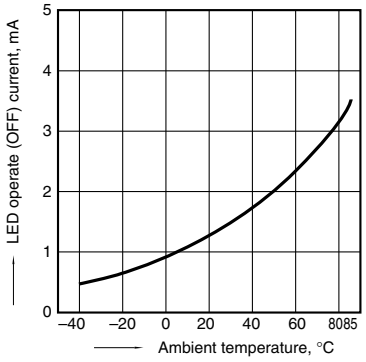
4. Reverse (ON) time vs. ambient temperature characteristics

LED current: 5 mA; Load voltage: Max. (DC);
Continuous load current: Max. (DC)



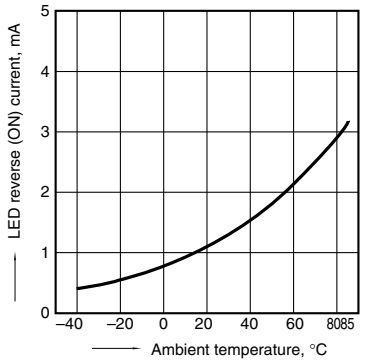
5. LED operate (OFF) current vs. ambient temperature characteristics

Load voltage: Max. (DC);
Continuous load current: Max. (DC)



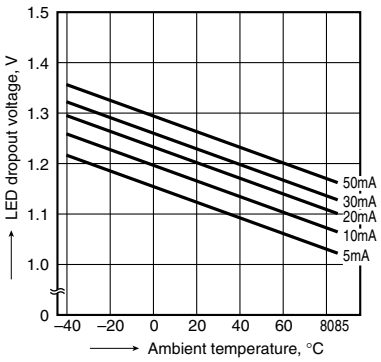
6. LED reverse (ON) current vs. ambient temperature characteristics

Load voltage: Max. (DC);
Continuous load current: Max. (DC)



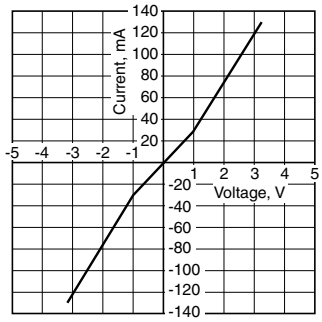
7. LED dropout voltage vs. ambient temperature characteristics;

LED current: 5 to 50 mA



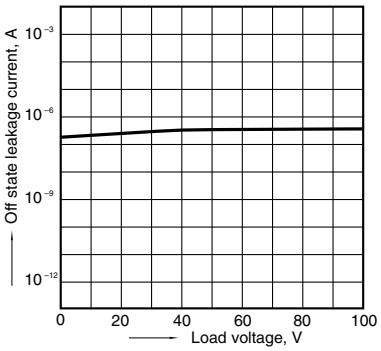
8. Current vs. voltage characteristics of output at MOS portion

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



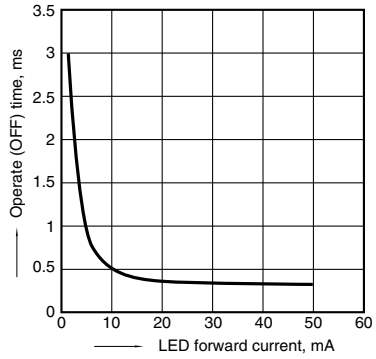
9. Off state leakage current vs. load voltage characteristics

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



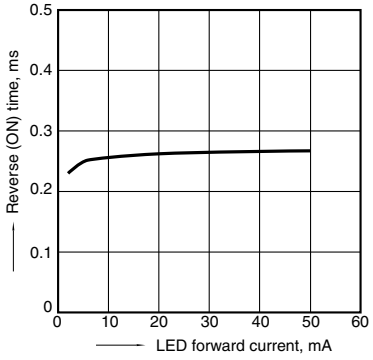
10. Operate (OFF) time vs. LED forward current characteristics

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



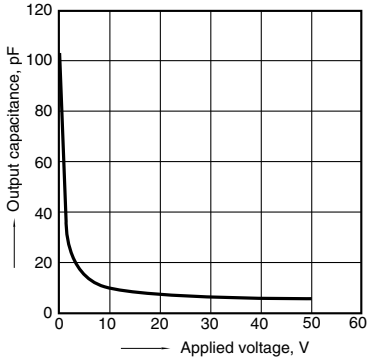
11. Reverse (ON) time vs. LED forward current characteristics

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



12. Output capacitance vs. applied voltage characteristics

Measured portion: between terminals 5 and 6, 7 and 8;
Frequency: 1 MHz; Ambient temperature: 25°C 77°F



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