

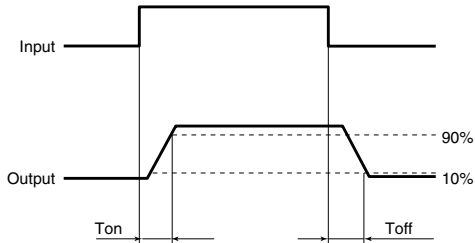
RF SOP 2 Form A C×R (AQW223R2S)

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

Item		Symbol	AQW223R2S	Condition
Input	LED operate current	Typical	0.5mA	I _L =Max.
		Maximum	3.0mA	
	LED turn off current	Minimum	0.1mA	I _L =Max.
		Typical	0.45mA	
LED dropout voltage	Typical	V _F	1.32V (1.14V at I _F =5mA)	I _F =50mA
	Maximum		1.5V	
Output	On resistance	Typical	11Ω	I _F =5mA
		Maximum	15Ω	I _L =Max.
	Output capacitance	Typical	33pF	I _F =0mA f=1 MHz V _B =0V
		Maximum	40pF	
	Off state leakage current	Typical	0.03nA	I _F =0mA V _L =Max.
Maximum		10nA (1nA or less)*		
Transfer characteristics	Turn on time**	Typical	0.15ms	I _F =5mA I _L =Max.
		Maximum	0.5ms	
	Turn off time**	Typical	0.05ms	I _F =5mA or 10mA I _L =Max.
		Maximum	0.2ms	
	I/O capacitance	Typical	0.8pF	f=1MHz V _B =0V
		Maximum	1.5pF	
Initial I/O isolation resistance	Minimum	R _{iso}	1,000MΩ	500V DC

*Available as custom orders (1 nA or less)

**Turn on/Turn off time



RECOMMENDED OPERATING CONDITIONS

Please obey the following conditions to ensure proper device operation and resetting.

Item	Symbol	Recommended value	Unit
Input LED current	I _F	5	mA

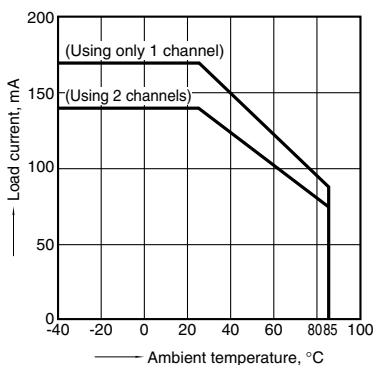
■ These products are not designed for automotive use.

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

REFERENCE DATA

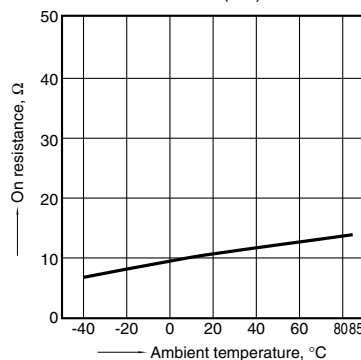
1. Load current vs. ambient temperature characteristics

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



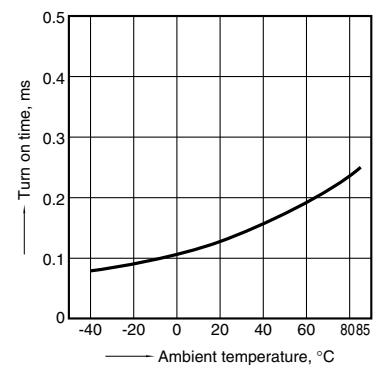
2. On resistance vs. ambient temperature characteristics

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



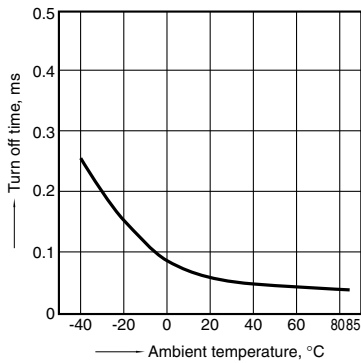
3. Turn on time vs. ambient temperature characteristics

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



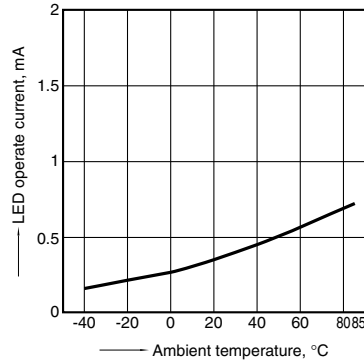
4. Turn off time vs. ambient temperature characteristics

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



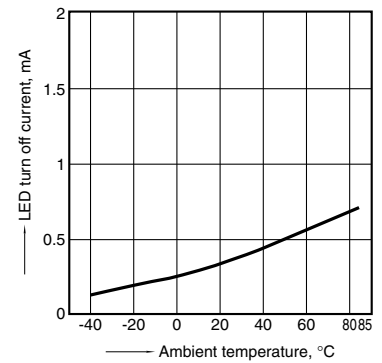
5. LED operate current vs. ambient temperature characteristics

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



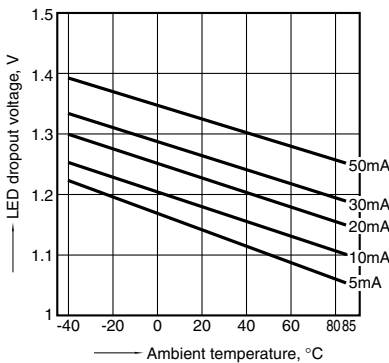
6. LED turn off current vs. ambient temperature characteristics

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



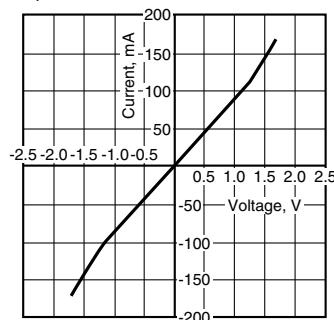
7. LED dropout voltage vs. ambient temperature characteristics

LED current: 5 to 50 mA



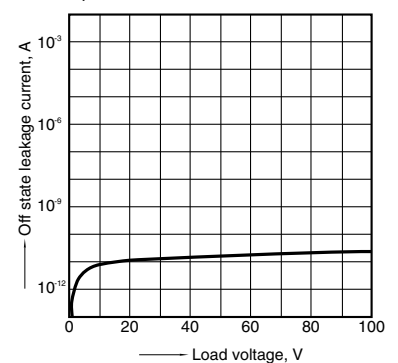
8. Current vs. voltage characteristics of output at MOS portion

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



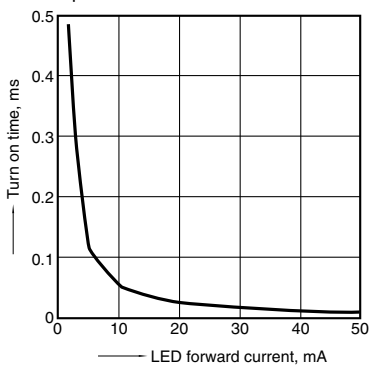
9. Off state leakage current vs. load voltage characteristics

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



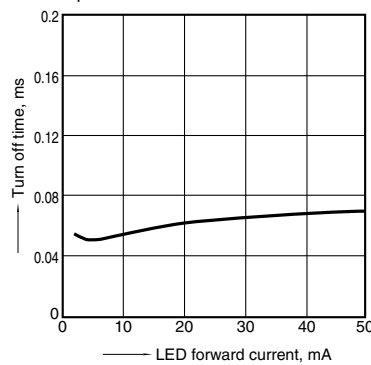
10. Turn on time vs. LED forward current characteristics

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



11. Turn 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



12. Output capacitance vs. applied voltage characteristics

Measured portion: between terminals 5 and 6, 7 and 8;
Frequency: 1 MHz, 30 mVrms;
Ambient temperature: 25°C 77°F

