Spec. No.: HL5032-8P069W:530-660A4-1050-1310

Issued Date: 2019-8-15

SPECIFICATION

Model Name: Multi Emitters 530/660/1050/1310

Model NO. : HL5032-8P069W

Customer No.:

Prepared by: Fu ming wei

Approved by: Xie Zhong Wu

Customer approved by: _____

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■Features

Multi Emitters

HL5032-8P069W

- ●molded packages
- ●8pin designs
- ● Multi wavelengths LEDs
- ●Matching detector response

■Applications

- ●SPO2
- ●Blood analysis
- ●Medical instrumentation
- ●Radiometric instruments

Name	Model	RED	IR	IR	IR	Package
Multi Emitters	HL5032-8P069W	530	660	1050	1310	8Pin, COB

■Absolute Maximum Ratings

(Ta= 25℃)

Parameter	Symbol	Max.	Unit	Note
Power Dissipation	P_d	60	mW	---
Forward Current	I_F	20	mA	---
Peak Forward Current	IFP	100	mA	1/10 Duty cycle,0.1ms pulse width
Reverse Voltage	V_R	5	V	---
Operating Temperature	T_{0pr}	-25～+85	℃	---
Storage Temperature	T_{Stg}	-40～+100	℃	---
Soldering Temperature	T_{S01}	260	℃	260℃ for 3 Seconds

■Electrical/Optical Characteristics

(Ta= 25℃)

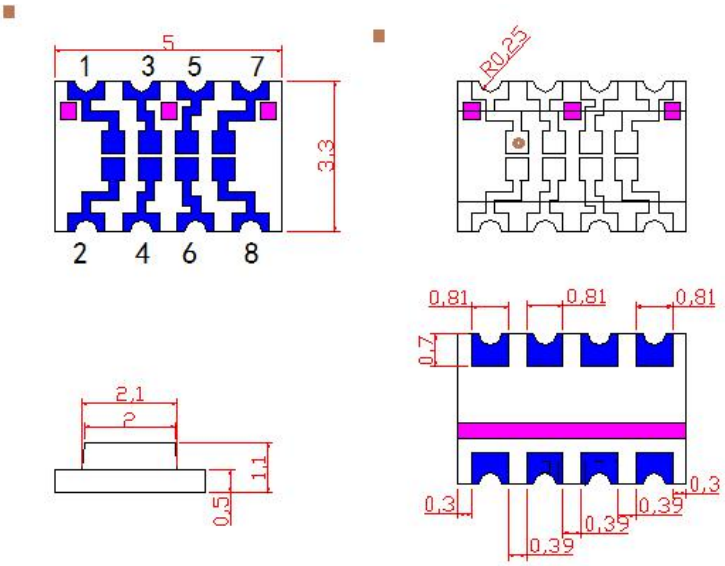
Parameter	Symbol	Min.		Typ.		Max.		Unit	Test Conditions
		530	660	530	660	530	660		
Forward Voltage	VF	2.8	1.8	3.2	2.0	3.4	2.4	V	IF=20mA
Reverse Current	IR	--	--	--	--	2	10	uA	VR=5V
Radiant Power	Po	5	6	6.5	11	10	15	mW	IF=20mA
Peak Wavelength	λp	515	660	525	663	535	666	nm	IF=20mA
Spectral Line Half-width	Δλ	--	--	35	20	--	--	nm	IF=20mA

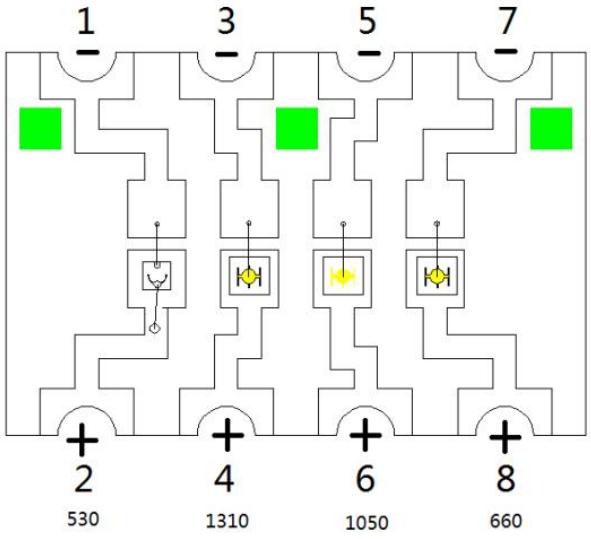
Multi Emitters

HL5032-8P069W

Parameter	Symbol	Min.		Typ.		Max.		Unit	Test Conditions
		1050	1310	1050	1310	1050	1310		
Forward Voltage	VF	0.95	--	1.2	1.03	1.45	--	V	IF=20mA
Reverse Current	IR	--	--	--	--	10	--	uA	VR=5V
Radiant Power	Po	2.0	--	3.0	1.2	5.0	--	mW	IF=20mA
Peak Wavelength	λp	1020	--	1050	1310	1080	--	nm	IF=20mA

■Dimension:





Notes:

1.All dimensions are in millimeters

2. Tolerances unless dimensions ±0.1mm

■ Characteristicsn Curves(Ta=25℃)

1) 530nm

Fig.1 – Relative luminous Intensity vs. Forward Current

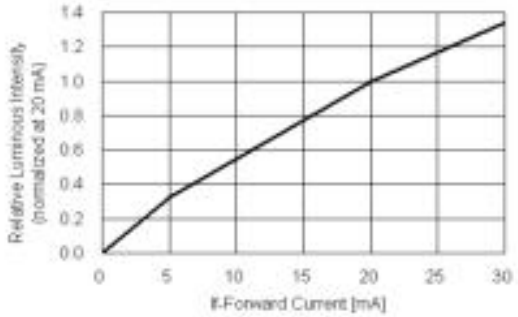


Fig.2 – Forward Current vs. Forward Voltage

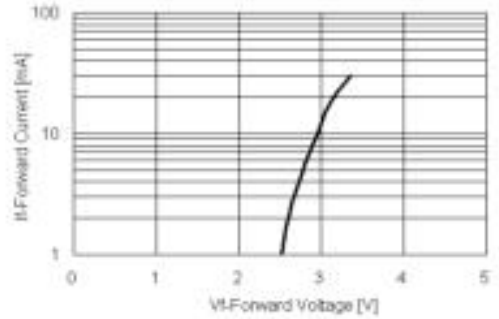


Fig.3 – Relative Intensity (@20mA) vs. Ambient Temperature

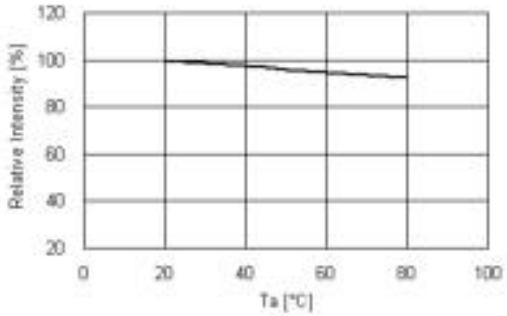


Fig.4 – Forward Voltage (@20mA) vs. Ambient Temperature

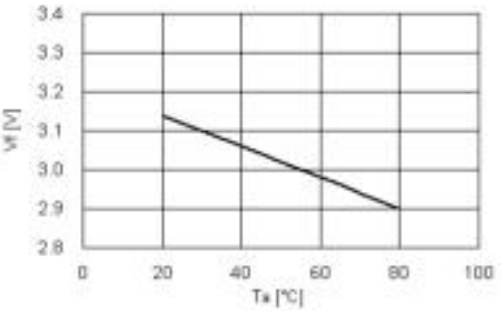


Fig.5 – Dominant Wavelength (@20mA) vs. Ambient Temperature

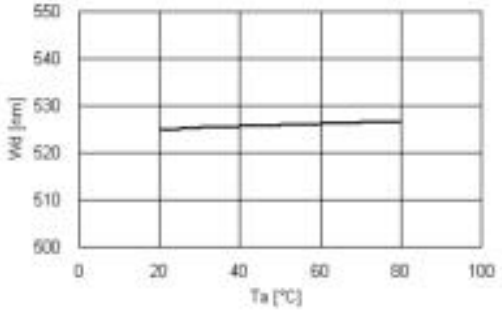
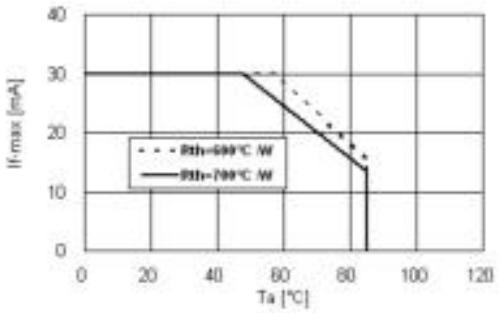


Fig.6 – Maximum Driving Forward DC Current vs. Ambient Temperature (De-rating based on Tj max. = 115°C)



2) 660nm

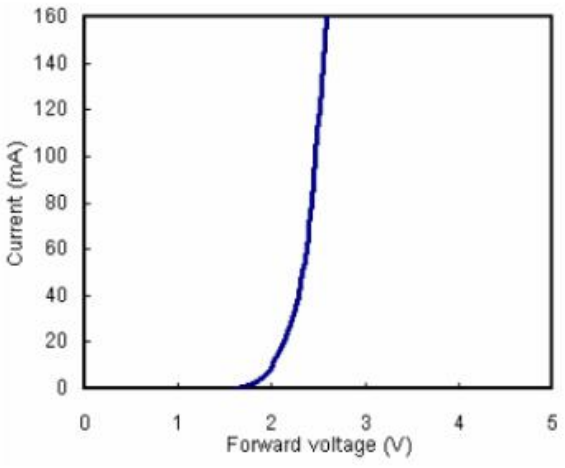


Fig.1 The I-V characteristics (0-70mA)

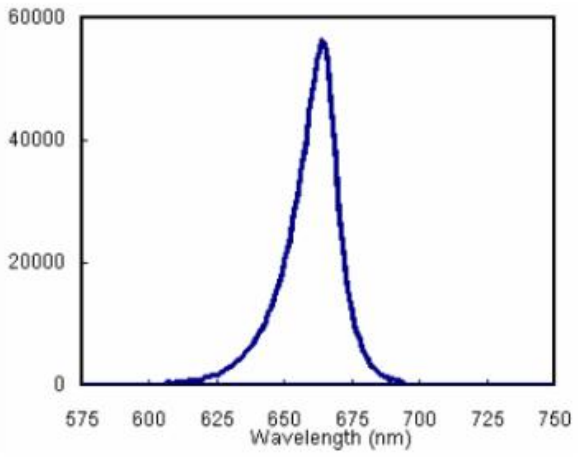


Fig.2 The EL spectrum

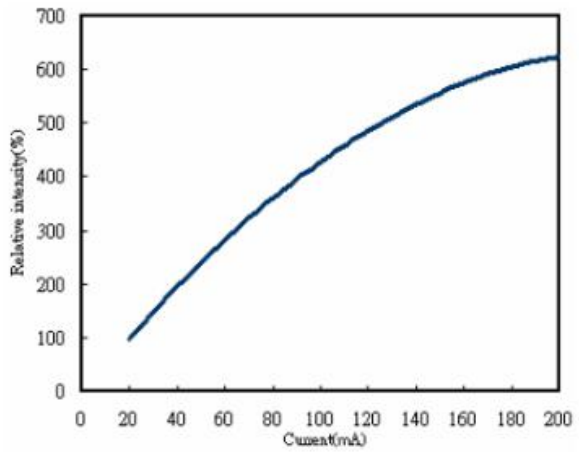


Fig.3 Relative intensity vs forward current

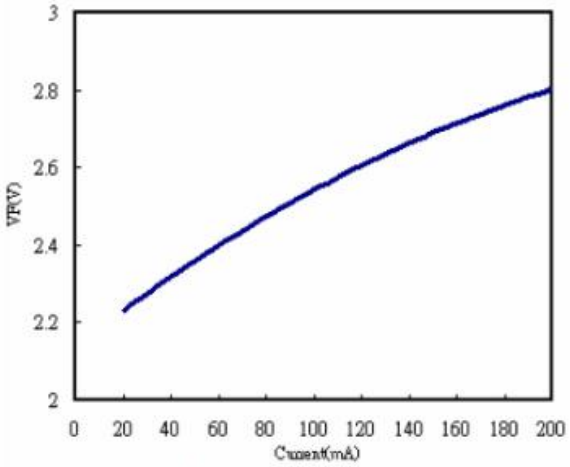


Fig.4 The V-I chracteristics (0-200mA)

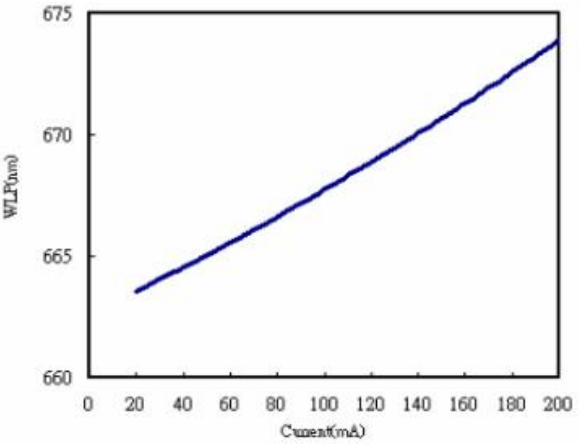


Fig.5 The WLP shift vs forward current

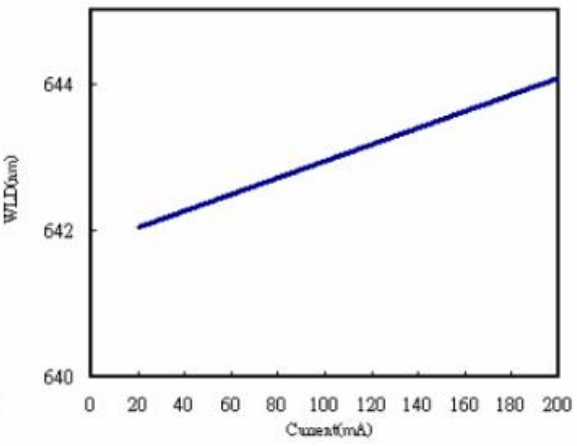


Fig.6 The WLD shift vs forward current

3) 1050nm

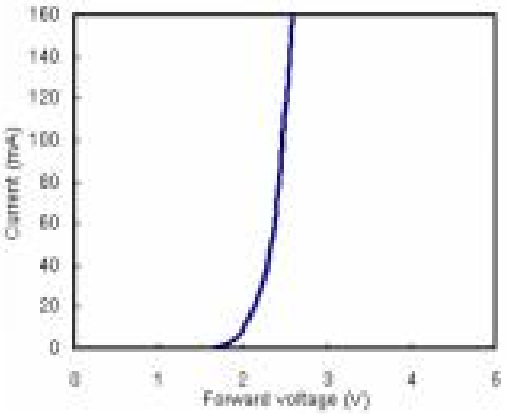


Fig.1 The I-V characteristics (0-70mA)

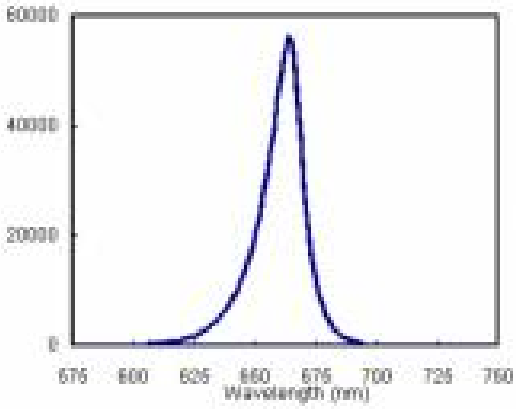


Fig.2 The EL spectrum

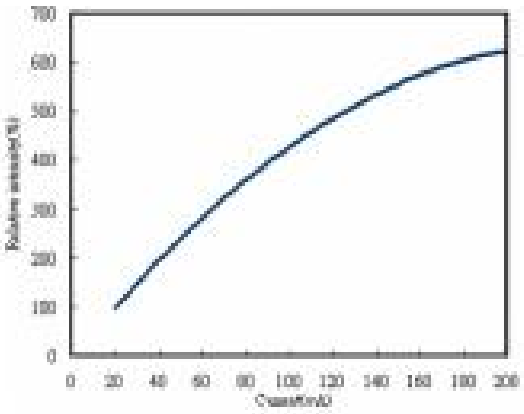


Fig.3 Relative intensity vs forward current

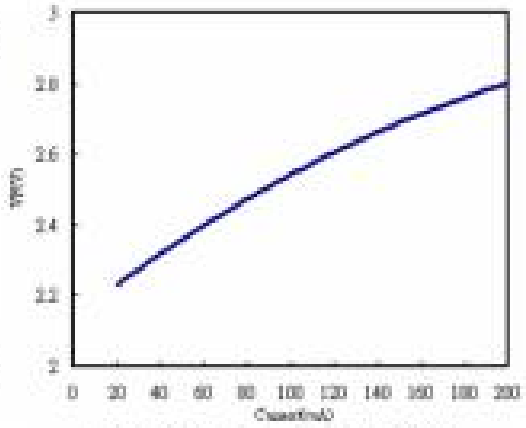


Fig.4 The V-I characteristics (0-200mA)

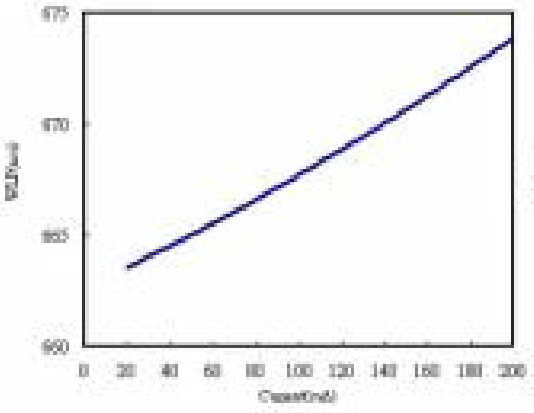


Fig.5 The WLP shift vs forward current

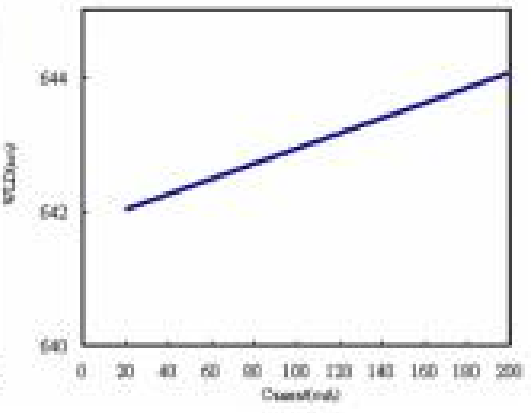


Fig.6 The WLD shift vs forward current

■ Storage and Soldering Condition

1. Do not open moisture proofs bag before the products are ready to use
2. Before opening the package, the LEDs should be kept at 30℃ or less and 90% RH or less.
3. The LEDs should be used within a year.
4. After opening the package, the LEDs should be kept at 30℃ or less and 70% RH or less.
5. The LEDs should be used within 168 hours (7 days) after opening the package.
6. If the moisture adsorbent material (silica gel) has fabled away or the LEDs have exceeded the storage time, baking treatment should be performed using the following conditions. Baking treatment: 60±5℃ for 24 hours.
7. When soldering, do not put stress on the LEDs during heating.
8. After soldering, do not warp the circuit board
9. Each terminal is to go to the tip of soldering iron temperature less than 260℃ for 5 seconds within once in less than the soldering iron capacity 25W. Leave tow seconds and more intervals, and do soldering of each terminal. Be careful because the damage of the product is often started at the time of the hand solder.