Spec. No.: HL4710-8P050B-BNNN

Issued Date: 2018-12-12

SPECIFICATION

Model Name: Reflective Blood Sensor

Model NO. : HL4710-8P050B-B

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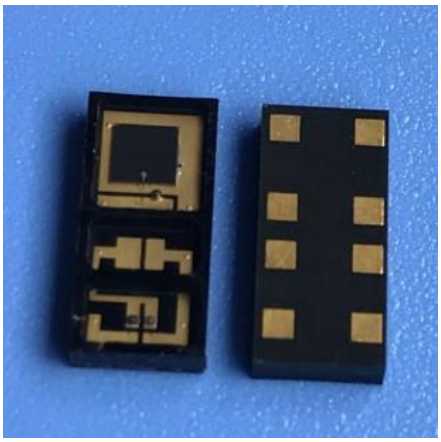
Reflective Blood Sensor

HL4710-8P050B-B

■Features



●Lead frame molded packages
● 8-pin leadless ceramic substrate
● Bi-wavelengths or triple wavelengths LEDs
●Matching detector response

■Applications

●SPO2
●Medical instrumentation
●Blood analysis
●Radiometric instruments

Name	Model	RED	IR	PD	Package
Reflector Blood Sensor	HL4710-8P050-A	660 nm	905nm	2.29*2.29mm	8-Pin, 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

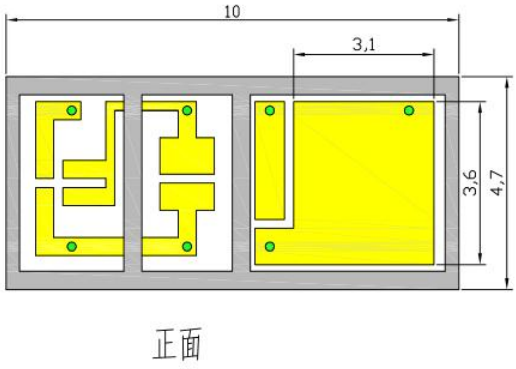
(Ta= 25℃)

Parameter	Symbol	Min.		Typ.		Max.		Units	Test Conditions
		905	660	905	660	905	660		
Forward Voltage	VF	--	1.8	1.35	--	1.75	2.3	V	IF=20mA
Reverse Current	IR	--	--	--	--	10	10	uA	VR=5V
Radiant Power	Po	1.5	4	3	9	4	11	mW	IF=20mA
Peak Wavelength	λp	--	--	895	660	--	--	nm	IF=20mA
Spectral Line Half-width	Δλ	--	--	50	15	--	--	nm	IF=20mA

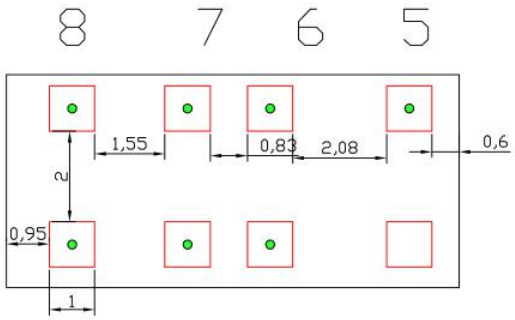
PD:

Parameter(参数)	Symbol	Min.	Typ.	Max.	Units	Test Conditions
	符号	最小值	规格值	最大值	单位	测试条件
Forward Voltage	V_F	0.5	--	1.3	V	IF=20mA,H=0
Reverse Breakdown Voltage	V_{BR}	35	--	--	V	IR=100uA,H=0
Reverse Dark Current	I_D	--	--	20	nA	VR=10V,H=0
Light current	I_L	--	135	--	uA	VR=5V,H as 1mw/cm2@940nm
Peak Sensing Wavelength	λp	--	940	--	nm	--
Spectral Bandwidth	$\Lambda_{0.5}$	400	--	1100	nm	--
Junction Capacitance	C_J	--	5	--	pF	VR=3V,H=0,F=1MHz

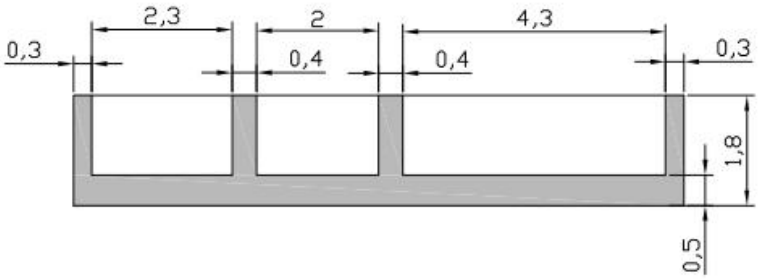
■Dimension:



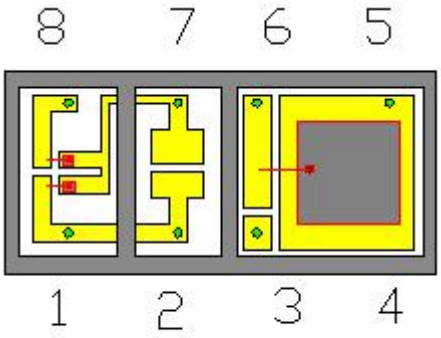
正面



反面



侧面 比例: 1:10



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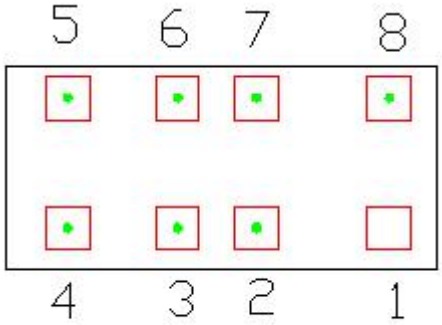
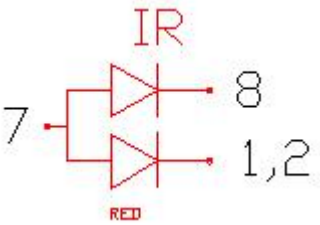
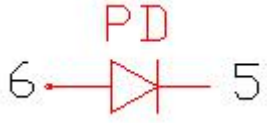


背面





Notes: 1.All dimensions are in millimeters
2. Tolerances unless dimensions ±0.1mm

■ 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.