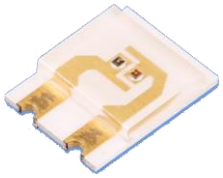
SPECIFICATION FOR APPROVAL

Customer Name:

Customer Item:



Part No. : PE-SQSO2-JD

Product Description:

Draw Date:

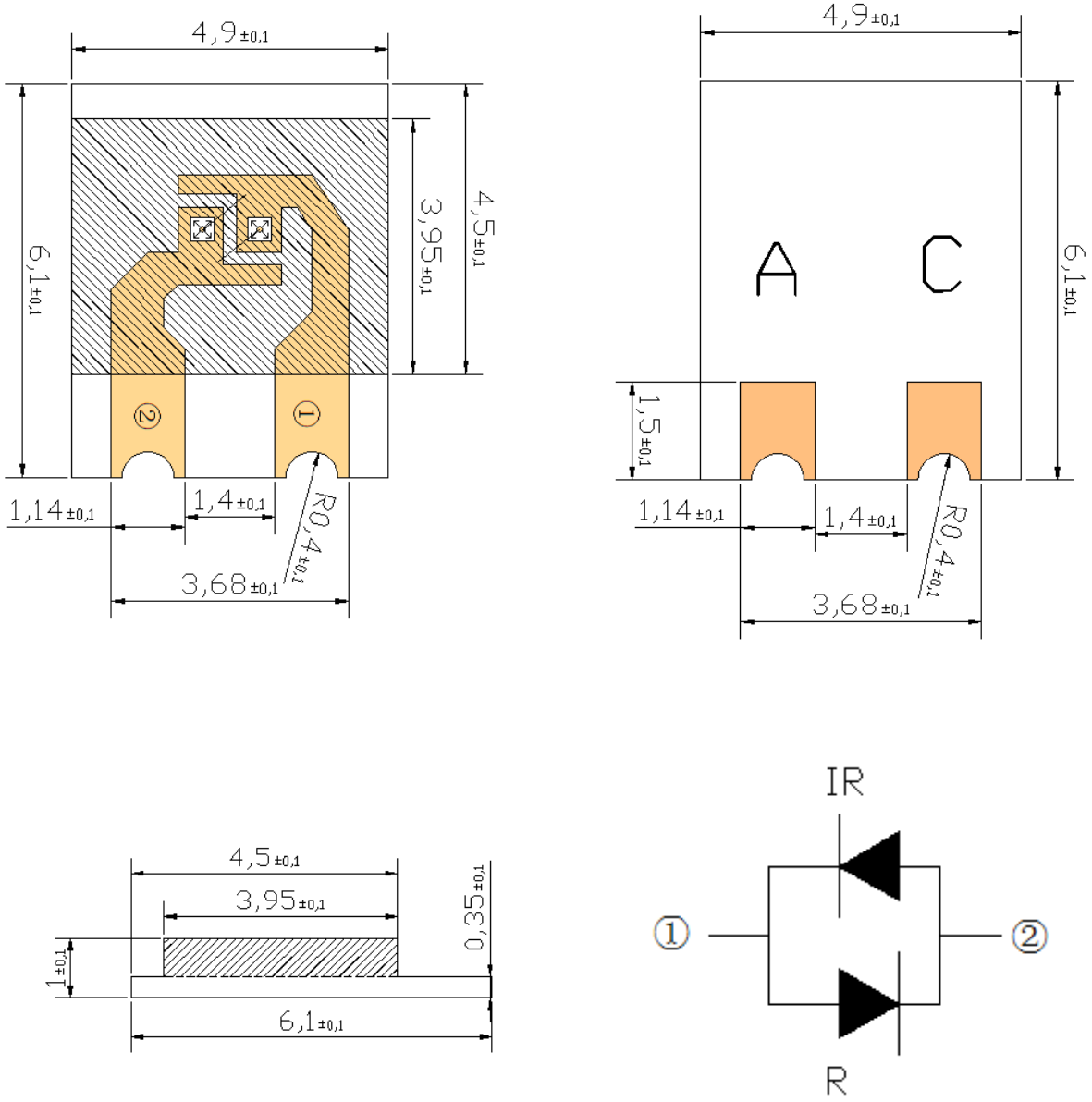
1.Accessory: □ **Samples** □ **Samples Data**

2.Customer's Proposal : □ **Agree** □ **Disagree**

Reason :

Rev.	Draw by :	Checked by :	Approved by :
1.2.1	Steven Chen	Gray Huang	Caren
Customer Approve			

Package outline dimensions:



Note：

1、 Dimensions are in millimeters.
2、 Tolerances unless mentioned are ±0.1mm

AbsoluteMaximumRatingsat:

Electrical characteristics	Symbol	Rated Value	Unit	condition Temperature
Max continuous working current	IF	≤35	mA	Ta=25°C
Max pulse current	IFP	100	mA	Ta=25°C
Reverse breakdown voltage	VR	10	V	Ta=25°C
Operating Temperature	Topr	-25℃to +85℃	℃	
Storage Temperature	Tstg	0℃to +40℃	℃	
Circle solder Temperature	Tsol	245℃for 10sec	℃	
complete Temperature	Tj	115	℃	

OpticalCharacteristics:

Parameter	Symbol	Test	Wlp	Min	Typ	Max	Unit
light quantity	Ie	IF=20mA	R	400	550	800	mcd
			IR905	2.1	5.3	7.8	mW/Sr
Emission Angle	2θ1/2				125		Deg
Wavelength	λp	IF=20mA	R	650	660	670	nm
			IR905	890	910	925	
Forward Voltage	VF	IF=20mA	R	1.7	-	2.4	V
			IR905	1.2	-	1.8	
Reverse current	IR	VR=5.0V		-		10	μA

Note：

1、 **Theta 1/2 is the half-value Angle, which refers to the Angle of radiation intensity from the optical center line to the optical center line, which is 1/2 of the light intensity of the optical center line**

2、 **The permissible tolerance for the above radiation flux test is±10%**

3、 **The voltage measurement error shown above is ±0.1v**

4、 **The above wavelength measurement error is ±1nm**

Typical Electro-Optical Characteristics Curves (905nm):

Fig.1 – Relative Radiant Flux vs. Forward Current

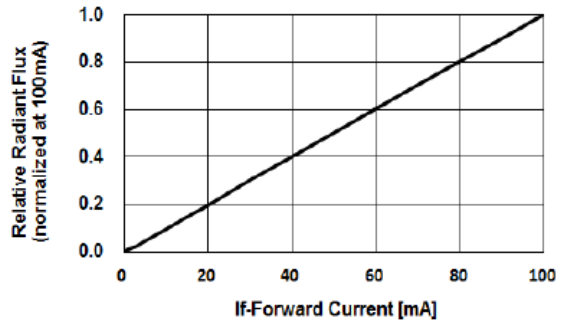


Fig.2 – Forward Current vs. Forward Voltage

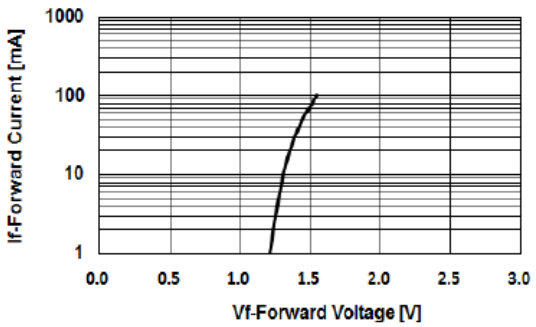


Fig.3 – Relative Radiant Flux (@100mA) vs. Ambient Temperature

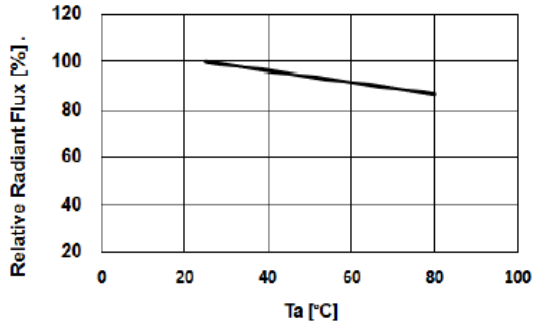


Fig.4 – Forward Voltage (@100mA) vs. Ambient Temperature

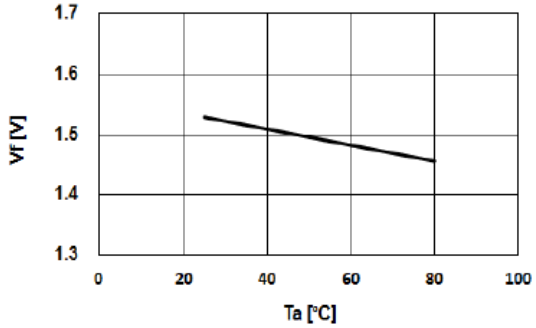


Fig.5 – Peak Wavelength (@100mA) vs. Ambient Temperature

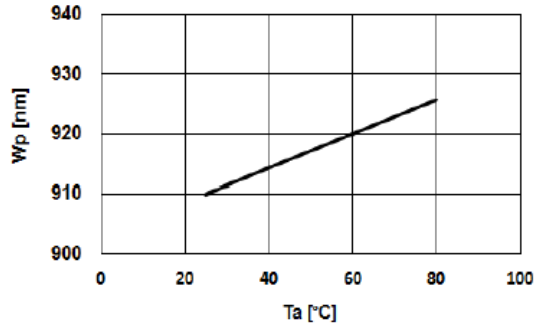
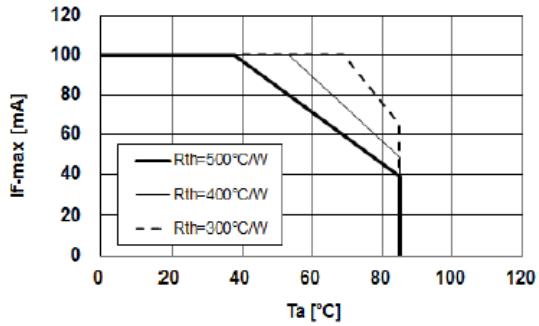


Fig.6 – Maximum Driving Forward DC Current vs. Ambient Temperature (De-rating based on Tj max. = 115°C)



Red 660nm graph

Fig.1 – Relative Radiant Flux vs. Forward Current

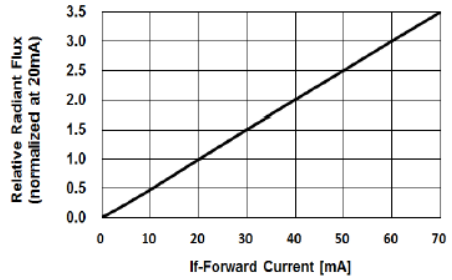


Fig.2 – Forward Current vs. Forward Voltage

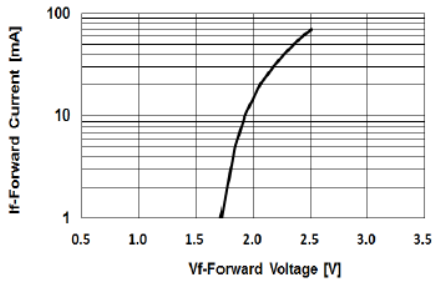


Fig.3 –Relative Radiant Flux (@20mA) vs. Ambient Temperature

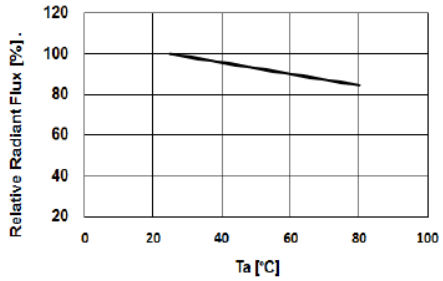


Fig.4 – Forward Voltage (@20mA) vs. Ambient Temperature

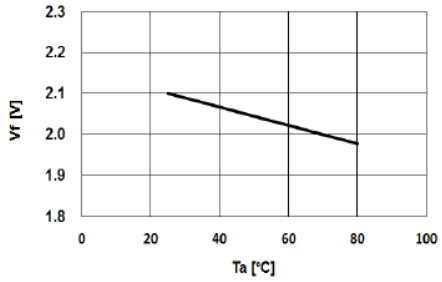


Fig.5 – Peak Wavelength (@20mA) vs. Ambient Temperature

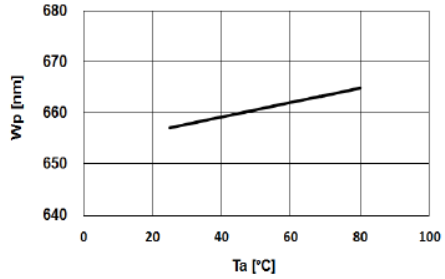
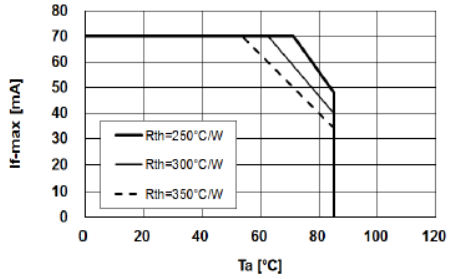
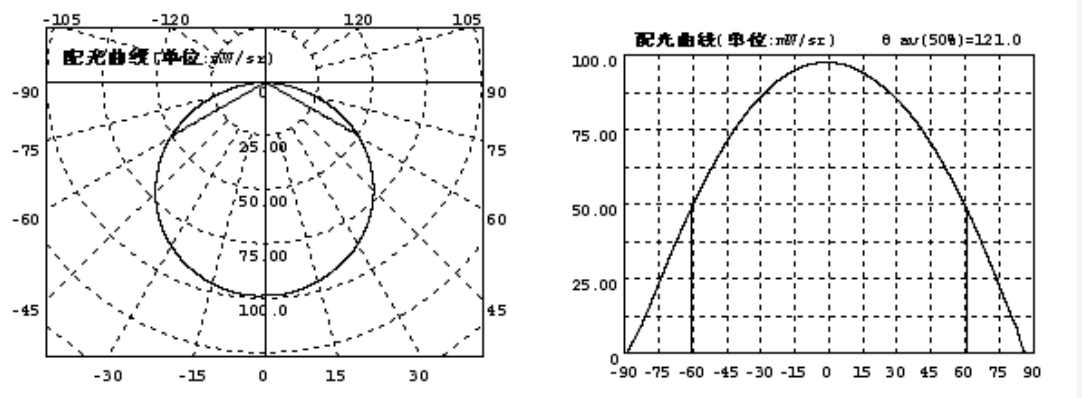


Fig.6 – Maximum Driving Forward DC Current vs. Ambient Temperature (De-rating based on Tj max. = 115°C)



Wavelength distribution curve:



ReliabilityTest:

Test Parameter	Reference Criterion	Test Condition	Time	Quantity	Ac/Re
Resistance to Soldering Heat	JESD22-B106	Temp:245℃max T=10sec	3 times	22Pcs	0/1
thermocycling	JESD22-A104	100℃±5 ℃30min. -40℃±5 ℃30min.	100 Cycles	22Pcs	0/1
High Temperature storage	JESD22-A103	Temp:100℃±5 ℃	1000Hrs	22Pcs	0/1
Low Temperature storage	JESD22-A119	Temp:-40℃±5 ℃	1000Hrs	22Pcs	0/1
Operating Life Test	JESD22-A108	Ta=25℃±5 ℃ IF=35mA	1000Hrs	22Pcs	0/1
High Temperature High Humidity	JESD22-A101	85℃±5 ℃/85％RH IF=35mA	1000Hrs	22Pcs	0/1

Judgement standard fail

Parameter	Symbol	Test Condition	Judgement standard	
			Min	Max
Forward Voltage	VF	IF=20mA	--	U.S.L*）×1.2
Reverse current	IR	VR=10V	--	U.S.L*）×2.0
Luminous intensity	mW/sr	IF=20mA	L.S.L*）×0.7	--

The technical information shown in the data table is limited to products referenced by typical eigenvalues and circuit instances and does not constitute a guarantee of industrial characteristics nor does it constitute an authorization of any license

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 les

3. The PDs should be used within a year.

4. After opening the package, the PDs should be kept at 30℃ or less and 70% RH or less.

5. The PDs should be used within 168 hours (7 days) after opening the package.

6. When soldering, do not put stress on the PDs during heating.

7. If the moisture adsorbent material (silica gel) has fabled away or the PDs have exceeded the storage time, baking treatment should be performed using the following conditions. Baking treatment: 60±5℃ for 24 hours

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.