



New  Rev



## APPROVAL SHEET

CUSTOMER : \_\_\_\_\_

DEVICE NAME : **Infrared LED**

MODEL NO. : **SIR- 3A256-D6**

ISSUED DATE : **SEP.14. 2012**

ISSUED DEPT.	ISSUE	APPROVED	REVIEW	APPR'D
		蒋宏华	邱丽红	

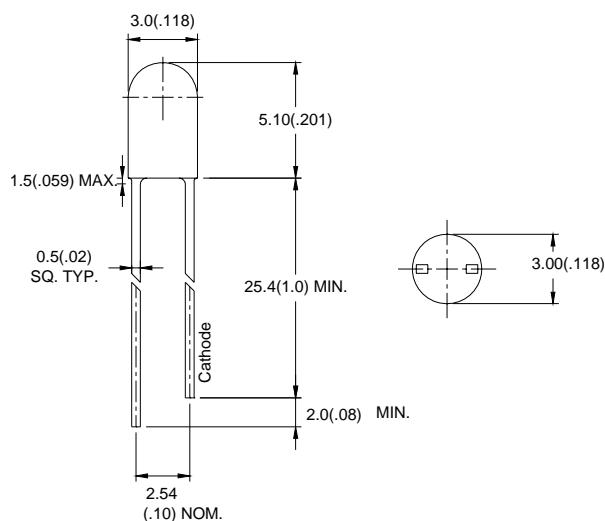
**SEKSEMI**

TEL : +86-755-88878308  
FAX : +86-755-88828216  
Email : sek@seksemi.com  
<http://www.seksemi.com>

### ● Features:

1. High radiant power and high radiant intensity.
2. Standard T-1 3/4(3mm) package.
3. Peak wavelength  $\lambda_p=850\text{nm}$ .
4. Good spectral matching to si-photodetector.
5. Radiant angle:  $40^\circ$ .
6. Lens Appearance: Water Clear
7. This product doesn't contain restriction substance, comply ROHS standard.

### ● Package dimensions:



### ● Applications:

1. Remote Control.
2. Automatic Control System.

#### NOTES:

1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.25\text{mm}$  ( $0.01''$ ) unless otherwise specified.
3. Lead spacing is measured where the leads emerge from the package.
4. Specifications are subject to change without notice.

### ● Absolute Maximum Ratings( $T_a=25^\circ\text{C}$ )

Parameter	Symbol	Rating	Unit
<b>Power Dissipation</b>	<b>Pd</b>	<b>100</b>	<b>mW</b>
<b>Continuous Forward Current</b>	<b>I<sub>F</sub></b>	<b>100</b>	<b>mA</b>
<b>Peak Forward Current *1</b>	<b>I<sub>FP</sub></b>	<b>1.0</b>	<b>A</b>
<b>Reverse Voltage</b>	<b>V<sub>R</sub></b>	<b>5</b>	<b>V</b>
<b>Operating Temperature</b>	<b>T<sub>opr</sub></b>	<b>-45°C~85°C</b>	<b>-</b>
<b>Storage Temperature</b>	<b>T<sub>stg</sub></b>	<b>-45°C~100°C</b>	<b>-</b>
<b>Soldering Temperature</b>	<b>T<sub>sol</sub></b>	<b>260°C(for 5 seconds)</b>	<b>-</b>

\*1Condition for IFP is pulse of 1/10 duty and 0.1msec width.

## ● Electrical and optical characteristics(Ta=25°C)

Parameter	Symbol	Test Condition s	Min	TYP	Max	Unit
Radiant Intensity	Ie	I <sub>F</sub> =50mA	16.5	65.56	-	mW/sr
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> =50mA	-	1.5	1.8	V
Reverse Current	I <sub>R</sub>	V <sub>R</sub> =5V	-	-	100	μA
Peak Wavelength	λ p	I <sub>F</sub> =20mA	-	850	-	nm
Spectral Line Half- Width	Δ λ	I <sub>F</sub> =20mA	-	50	-	nm
Viewing Angle	2θ <sub>1/2</sub>	I <sub>F</sub> =20mA	-	40	-	deg

## ● Typical electro-optical characteristics curves

Fig.1 Spectral Distribution

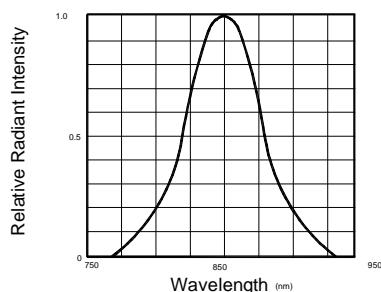


Fig.2 Forward Current Vs Ambient Temperature

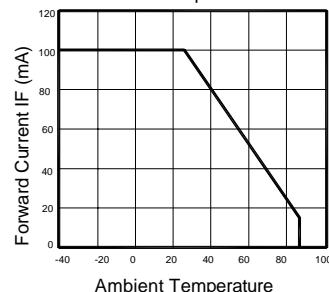


Fig.3 Forward Current Vs

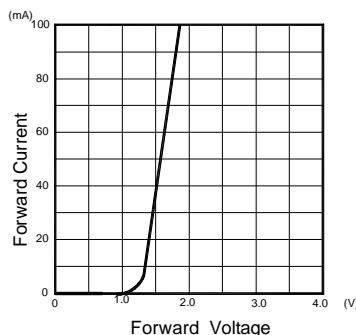


Fig.4 Relative Radiant Intensity Vs Ambient Temperature

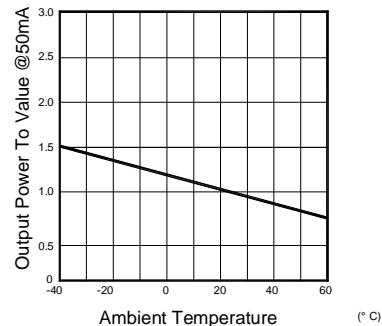


Fig.5 Relative Radiant Intensity Vs Forward Current

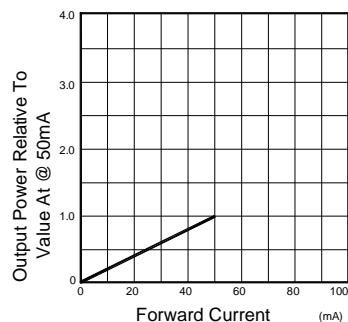
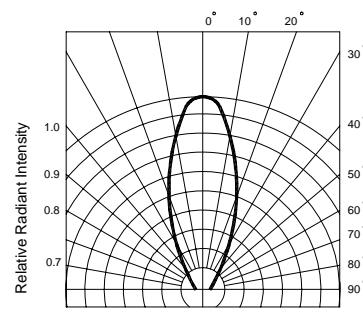


FIG.6 Radiant Diagram



# Disclaimer

All products, product specifications and data are subject to change without notice to improve reliability, function or design or otherwise.

SEKwang Semiconductor Co.,Ltd., its affiliates, agents, and employees, and all persons acting on its or their behalf(collectively, SEKwang), Disclaim any and all liability for any errors, inaccuracies or incompleteness contained in any datasheet or in any other disclosure relating to any products.

SEKwang makes no warranty, representation or guarantee regarding the suitability of the products for any particular purpose or the continuing production of any products. To the maximum extent permitted by applicable law, SEKwang disclaims

(1) any and all liability arising out of the application or use of any products, (ii)any and all liability, including without limitation special, consequential or incidental damages, and any and all implied warranties, (iii)including warranties of fitness for particular purpose, non-infringement and merchantability.

Statements regarding the suitability of products for certain types of applications are based on SEKwang's knowledge of typical requirements that are often placed on SEKwang products in generic applications. Such statements are not binding statements about the suitability of products for a particular application. It is the customers' responsibility to validate that a particular products with the properties described in the products specification is suitable for use in a particular application. Parameters provided in datasheets and /or specifications may vary in different applications and performance may vary over time. All operating parameters, including typical parameters, must be validated for each customer application by the customers's technical experts. Products specifications do not expand or otherwise modify SEKwang's terms and conditions of pruschase, inculding but not limited to the warranty expressed therein

Except as expressly indicated in writing, Sekwang products are not designed for use in medical, life-saving,or life-sustaining applications or for any other application in which the failure of the SEKwang products could result in personal injury or death. Customers using or selling SEKwang products not expressly indicated for use in such applications do so at their own risk and agree to fully indemnify and hold SEKwang and its distributors harmless from and against any and all claims, liabilityes, expenses and damages arising or resulting in connection with such use or sale, including attorneys fees, even if such claim alleges that SEKwang or its distributor was negligent regarding the design or manufacture of the part. Please contact authorized SEKwang personnel to obtain written terms and conditions regarding products designed for such applications.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this documents or by any conduct of SEKwang. Products names and markings noted herein maybe trademarks of their respective owners.