



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



QT-Brightek High Power Series

1.0 W High Power IR LED

Part No.: QBHP684-IR3XU

U = 350mA

3 = 850nm

X = Viewing Angle (X=A:60° ; X=B:120°)

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Introduction

Feature:

- 1W High Bright IR LED
- Packed in tape and reel
- High radiant power output
- Viewing Angle 60° typ. (QBHP684-IR3AU)
- Viewing Angle 120° typ. (QBHP684-IR3BU)

Description:

This 1W high power IR LED has compact size of 3.5 x 3.5mm. It is ideal for both infrared sensing applications.

Application:

- Data transmission
- Sensing
- Remote control

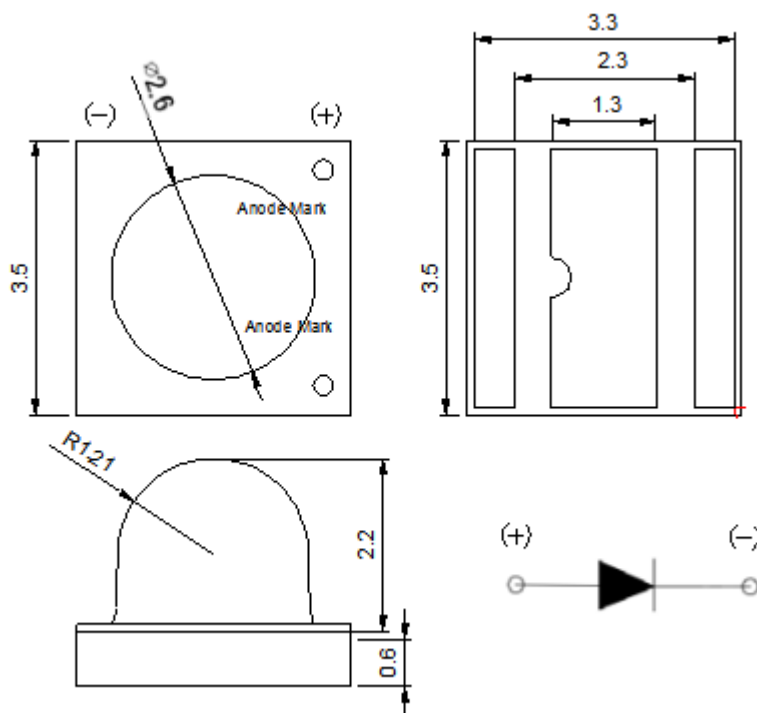
Certification & Compliance:

- TS16949
- ISO9001
- RoHS Compliant

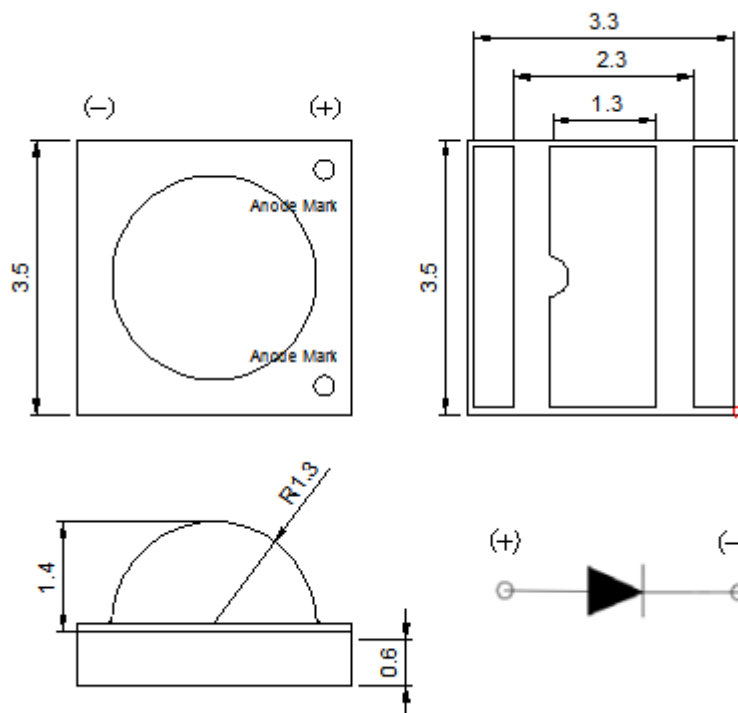


Outline Dimensions:

60°



120°



Units: mm / tolerance = +/-0.2mm

Electrical / Optical Characteristic (Ta=25 °C)

| Product Number | Color | I _F (mA) | V _F (V) | | | λ _p (nm) | | | P _O (mW) | |
|----------------|----------|---------------------|--------------------|------|------|---------------------|------|------|---------------------|------|
| | | | Min. | Typ. | Max. | Min. | Typ. | Max. | Min. | Typ. |
| QBHP684-IR3AU | Infrared | 350 | 1.4 | 1.9 | 2.4 | 840 | 850 | 860 | 150 | 250 |
| QBHP684-IR3BU | | | | | | | | | | |

Absolute Maximum Rating

| P _d (W) | I _F (mA) | I _{FP} (mA) | V _R (V) | T _{OP} (°C) | T _{ST} (°C) | T _{SOL} (°C) |
|--------------------|---------------------|----------------------|--------------------|----------------------|----------------------|-----------------------|
| 1.68 | 700 | 1000 | 5 | -40 to +85 | -40 to +100 | 260 |

Radiometric Power P_O @ I_F=350mA

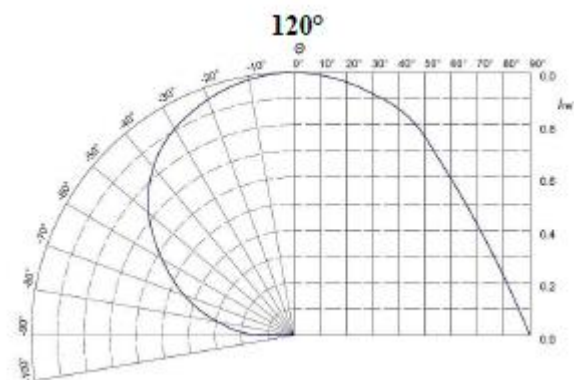
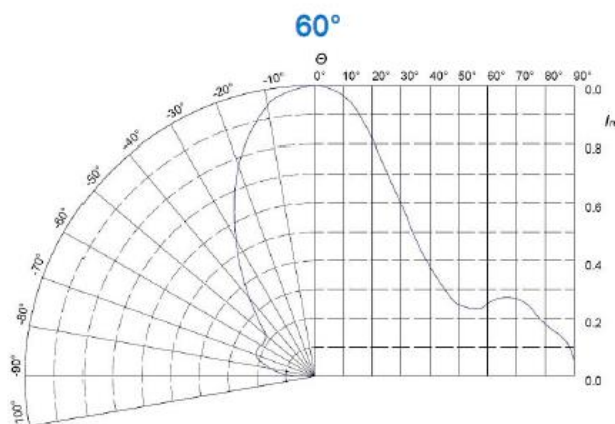
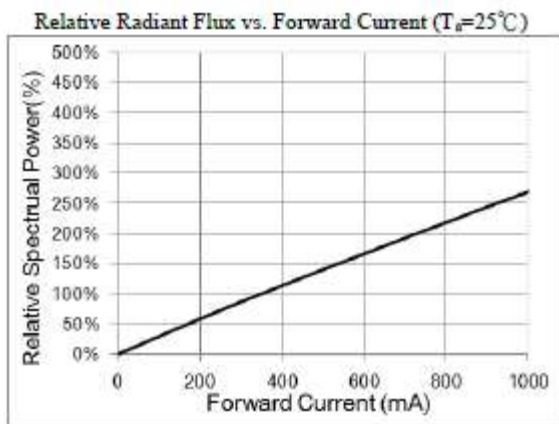
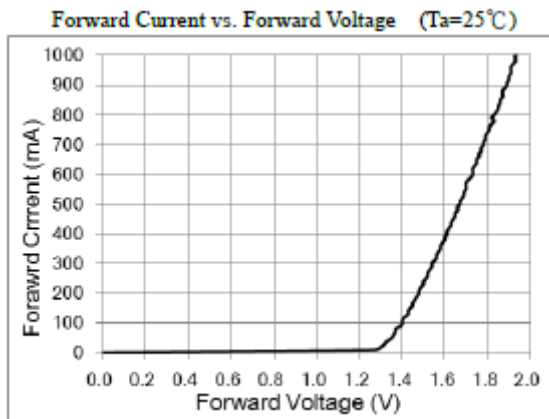
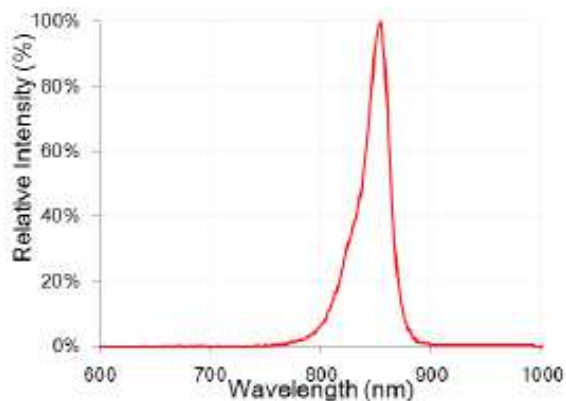
| Bin | Min. | Max. | Unit |
|-----|------|------|------|
| P20 | 150 | 200 | mW |
| P25 | 200 | 250 | |
| P30 | 250 | 300 | |

Tolerance of measurement of forward voltage: ±0.1V

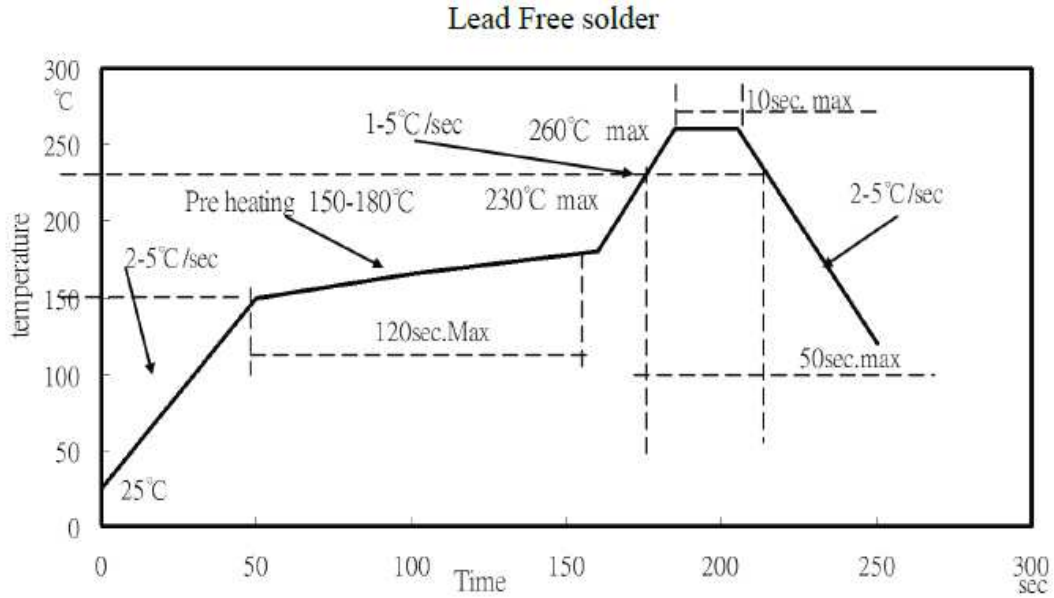
Tolerance of measurement of Radiometric Power: ±15%

Tolerance of measurement of Peak wavelength: ±2nm

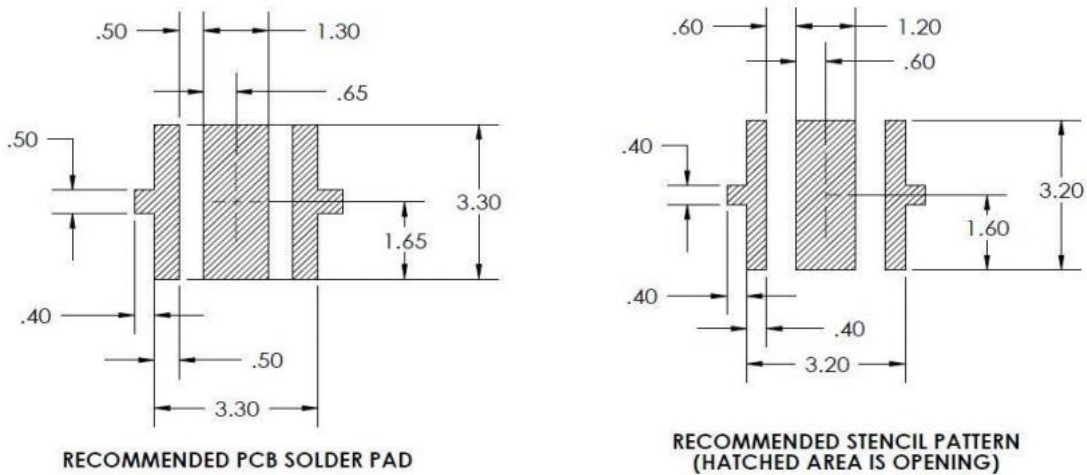
Characteristic Curves



IR Reflow Soldering Profile



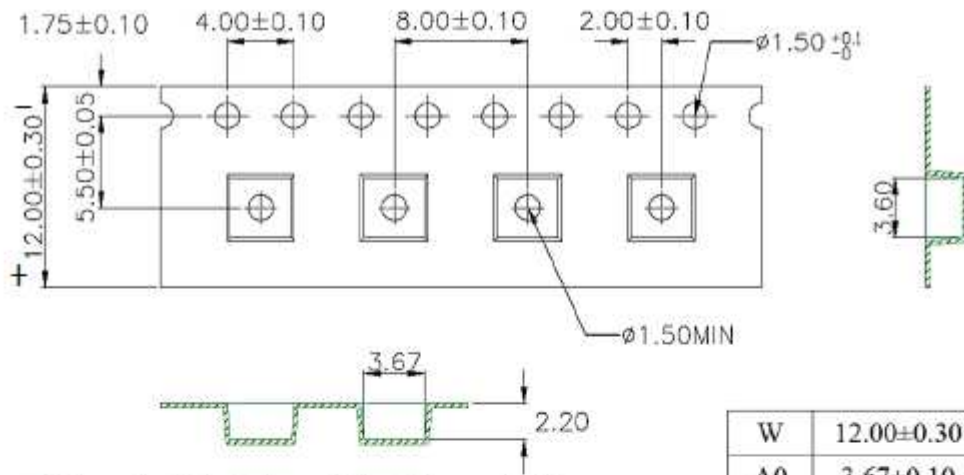
Recommended Soldering Pad:



Unit: mm

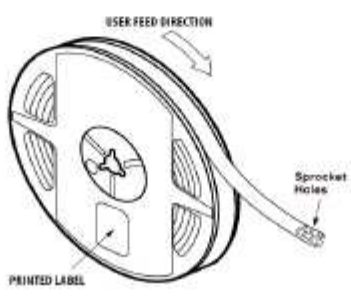
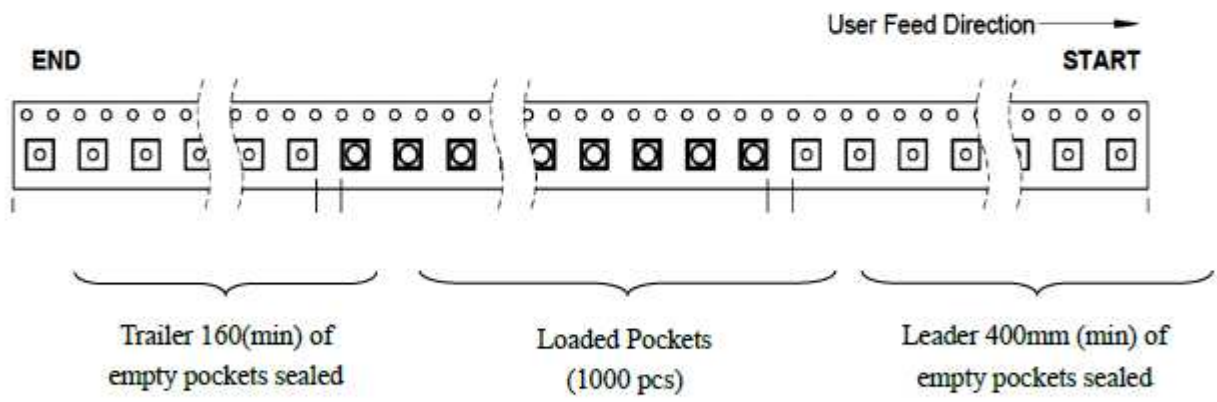
Packing

Tape and Reel:



1. 10 sprocket hole pitch cumulative tolerance ± 0.20 .
2. Carrier camber is within 1 mm in 250 mm.
3. Material : Black Conductive Polystyrene Alloy.
4. All dimensions meet EIA-481-D requirements.
5. Thickness : 0.30 ± 0.05 mm.

| | |
|----|------------|
| W | 12.00±0.30 |
| A0 | 3.67±0.10 |
| B0 | 3.60±0.10 |
| K0 | 2.20±0.10 |



Unit: mm

Labeling

Part No: _____
 Customer P/N: _____
 Item: _____
 Q'ty: _____
 Vf: _____
 Iv: _____
 WI: _____
 Date: _____

Made in Taiwan**Ordering Information**

| Part # | Orderable Part # | Spec Range | Quantity per reel |
|---------------|------------------|---|-------------------|
| QBHP684-IR3AU | QBHP684-IR3AU | P _o =250mW typ., λ _p =850nm typ. @ I _F =350mA, V _A =60° | 500 |
| QBHP684-IR3BU | QBHP684-IR3BU | P _o =250mW typ., λ _p =850nm typ. @ I _F =350mA, V _A =120° | 1000 |

Revision History

| Description: | Revision # | Revision Date |
|--|------------|---------------|
| New Release of QBHP684-IR3BU | V1.0 | 01/26/2016 |
| Add VA=60° option | V1.1 | 02/29/2016 |
| Correct the packing spec for QBHP684-IR3AU | V1.2 | 03/24/2016 |
| Update drawing dimension | V1.3 | 09/08/2016 |
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2. A critical component in any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.