

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)
- Isolated Heat Slug

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

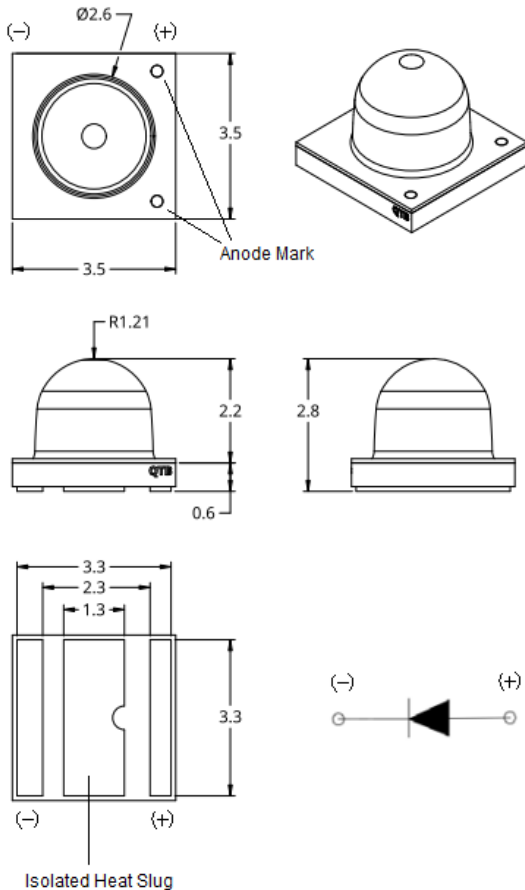
Certification & Compliance:

- ISO9001
- RoHS Compliant

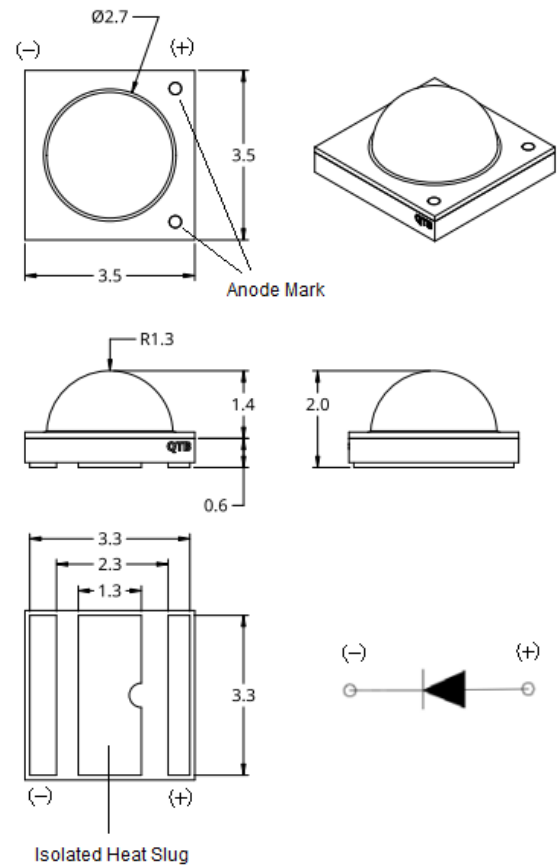


Outline Dimensions:

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										

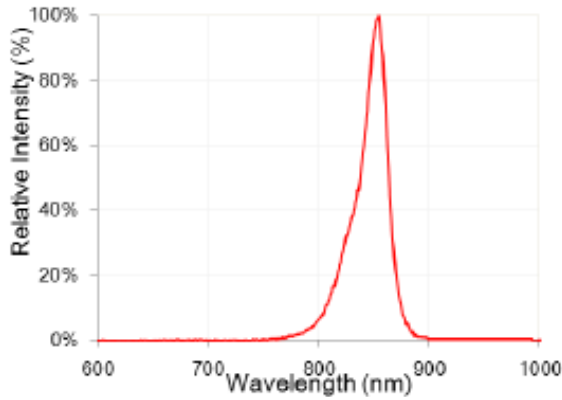
Absolute Maximum Rating

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

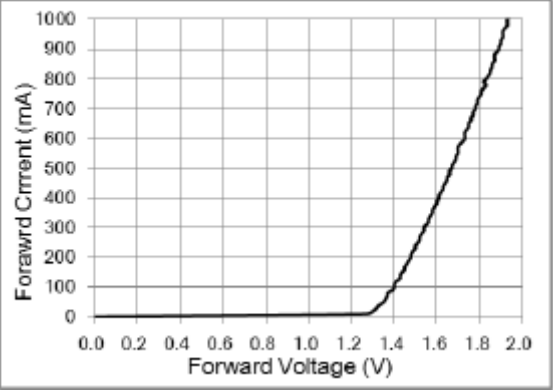
Radiometric Power P_O @ I_F=350mA

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

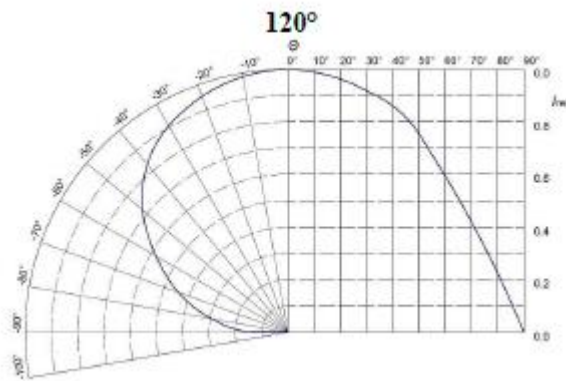
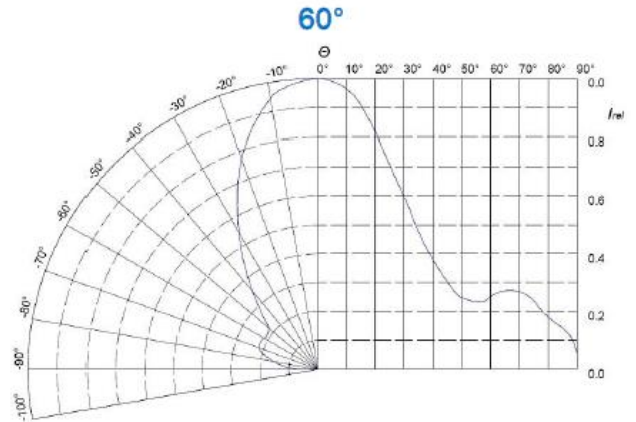
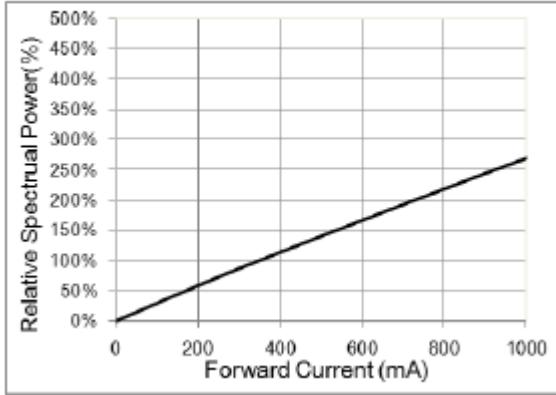
Characteristic Curves



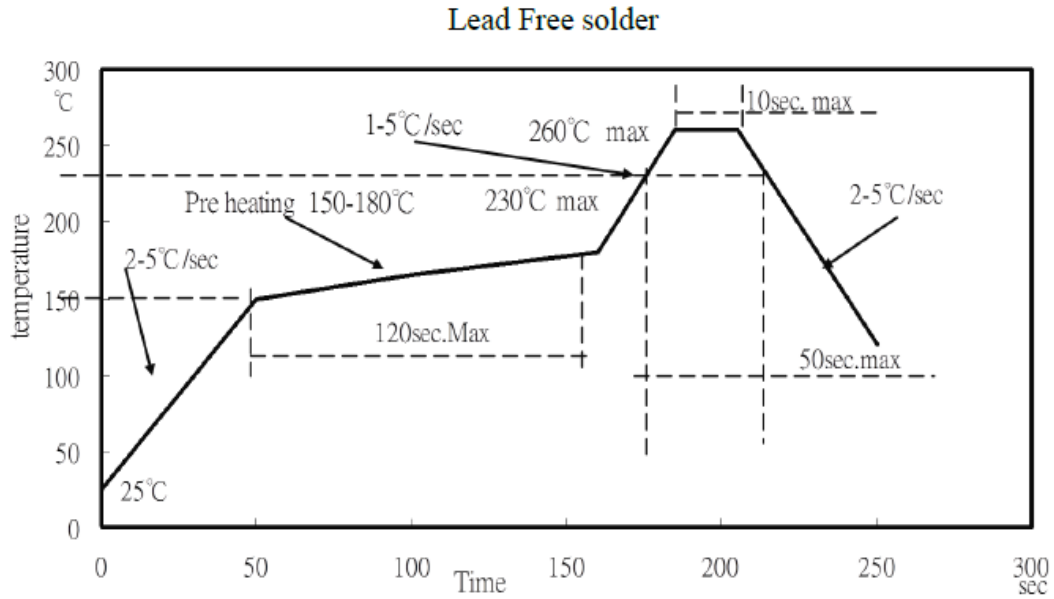
Forward Current vs. Forward Voltage (Ta=25°C)



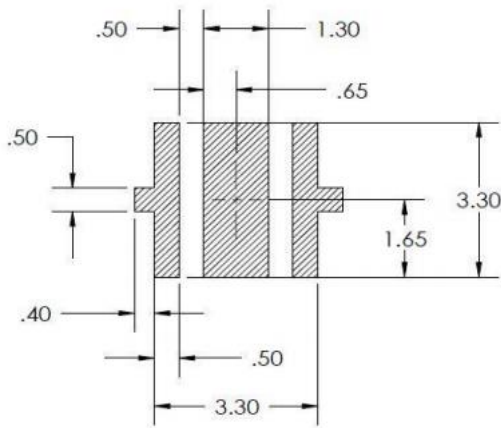
Relative Radiant Flux vs. Forward Current (Ta=25°C)



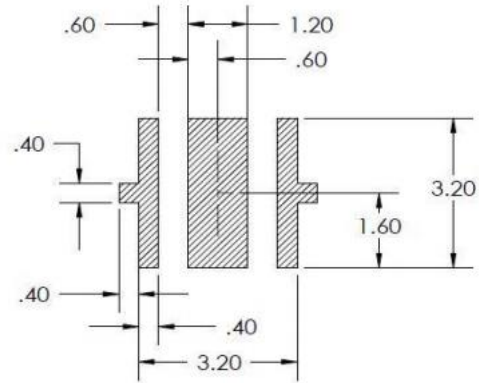
IR Reflow Soldering Profile



Recommended Soldering Pad:



RECOMMENDED PCB SOLDER PAD

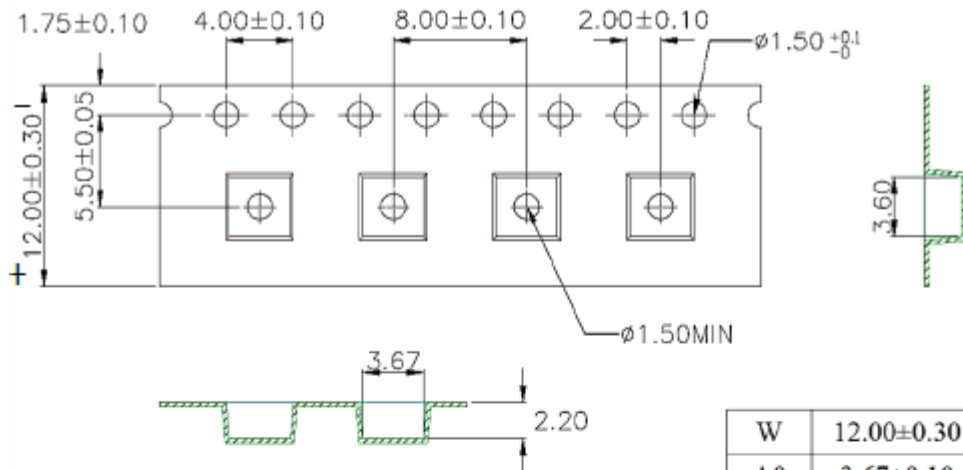


RECOMMENDED STENCIL PATTERN
(HATCHED AREA IS OPENING)

Unit: mm

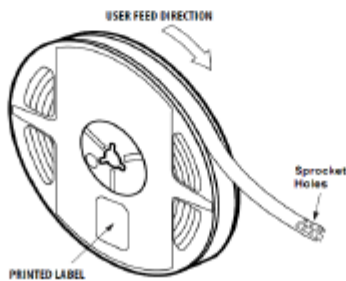
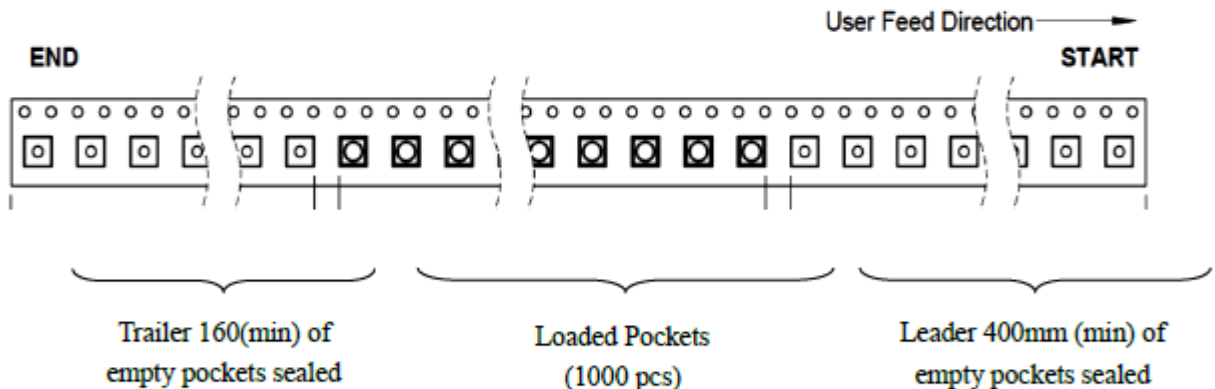
Packing

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
Update logo and the drawing in the outline dimensions section	V1.4	09/07/2022

Disclaimer

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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.