

QT-Brightek Infrared Series

Infrared LED

Part No.: QBHP684E-IR1500Y Series

**Y: Viewing Angle
1500: WLP 1500nm**

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Introduction

Feature:

- IR LED – WLP=1500nm
- Clear Lens
- Packed in tape and reel
- ESD rating: 8KV (HBM)
- Viewing Angle: A=60°, B=120°

Description:

This IR LED has compact size of 3.5 x 3.5mm. It is ideal for various IR applications.

Application:

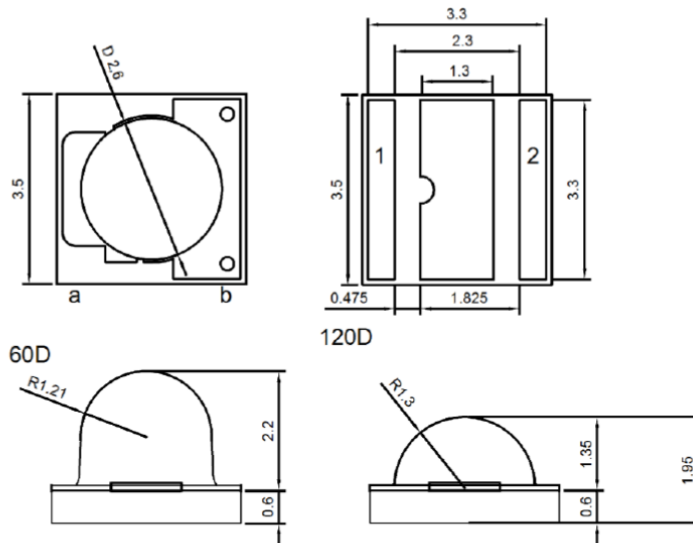
- Optical Communication
- Safety Equipment
- Automation
- Sensor Technology

Certification & Compliance:

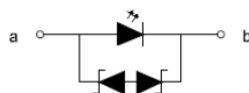
- TS16949
- ISO9001
- RoHS Compliant



Outline Dimensions:



Electrical Test Point:



| Test Point | 1- | 2+ |
|------------|----|----|
| a+ | X | O |
| b- | O | X |

X = Open
O = Short

Units: mm / tolerance = +/-0.2mm

Electrical / Optical Characteristic (Ta=25 °C)

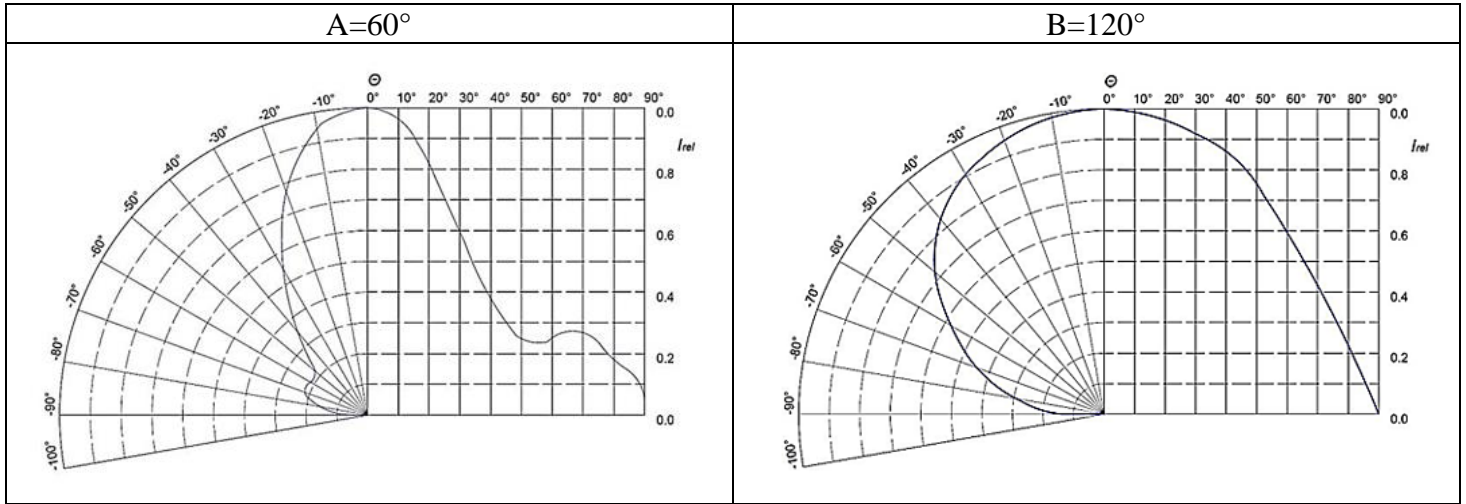
| Part Number | Color | I _F (mA) | V _F (V) | | | λ _P (nm) | | | P _O (mW) | | |
|------------------|-------|---------------------|--------------------|------|------|---------------------|------|------|---------------------|------|------|
| | | | Min. | Typ. | Max. | Min. | Typ. | Max. | Min. | Typ. | Max. |
| QBHP684E-IR1500A | IR | 50 | 0.7 | - | 1.4 | 1450 | 1500 | 1550 | 1.2 | 2.0 | - |
| QBHP684E-IR1500B | | | | | | | | | | | |

Absolute Maximum Rating

| I _F (mA) | I _{PF} (mA)* | V _R (V) | T _{OP} (°C) | T _{ST} (°C) |
|---------------------|-----------------------|--------------------|----------------------|----------------------|
| 50 | 70 | 5 | -40 to +85 | -40 to +85 |

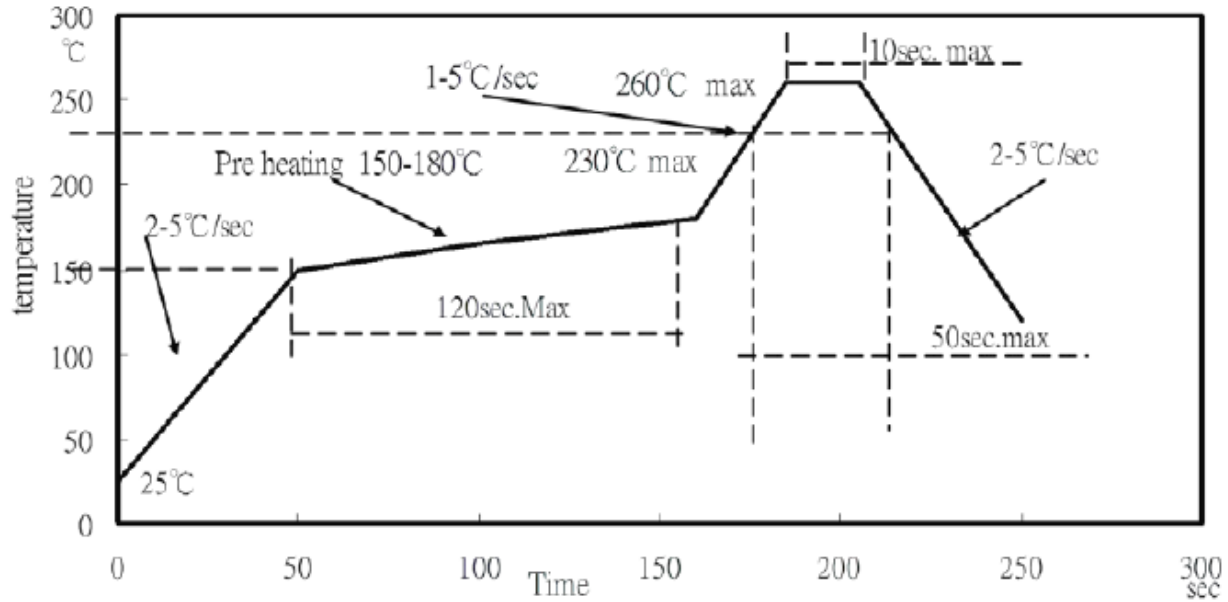
*Duty 1/10 @ 0.01s

Characteristic Curves



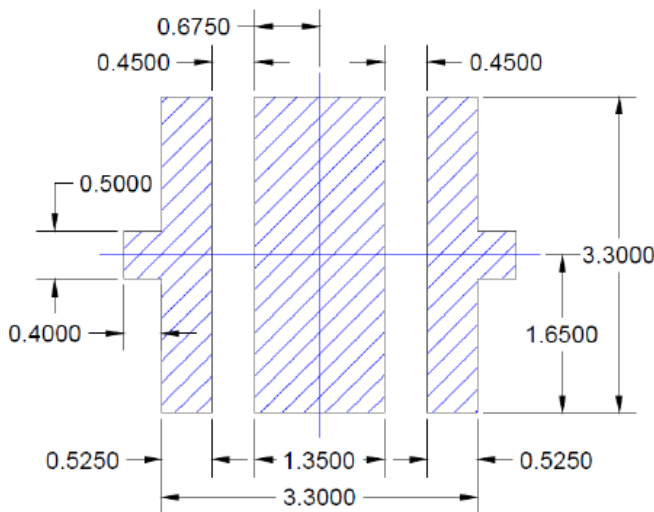
IR Reflow Soldering Profile

Lead Free solder

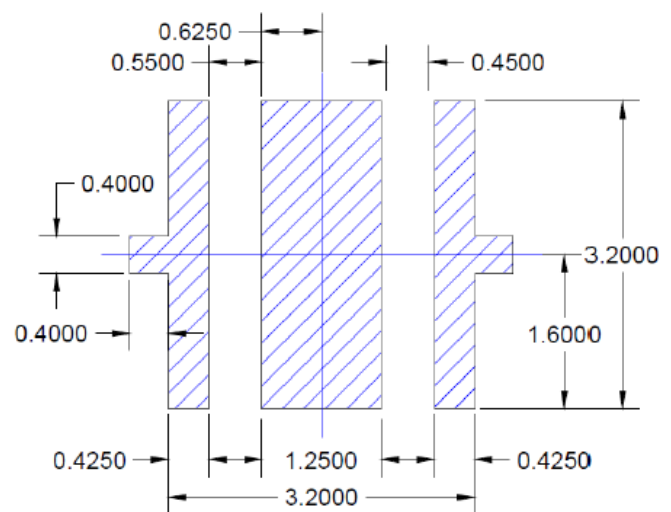


Recommended Soldering Pad:

RECOMMENDED PCB SOLDER PAD



RECOMMENDED STENCIL PATTERN (HATCHED AREA IS OPENING)

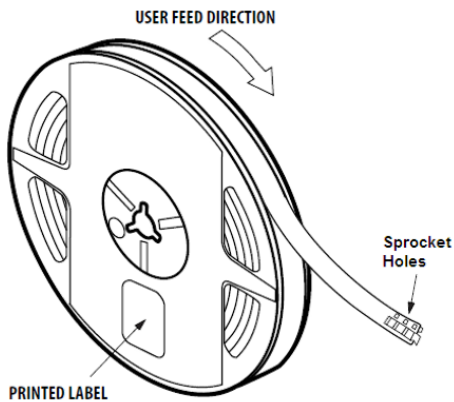
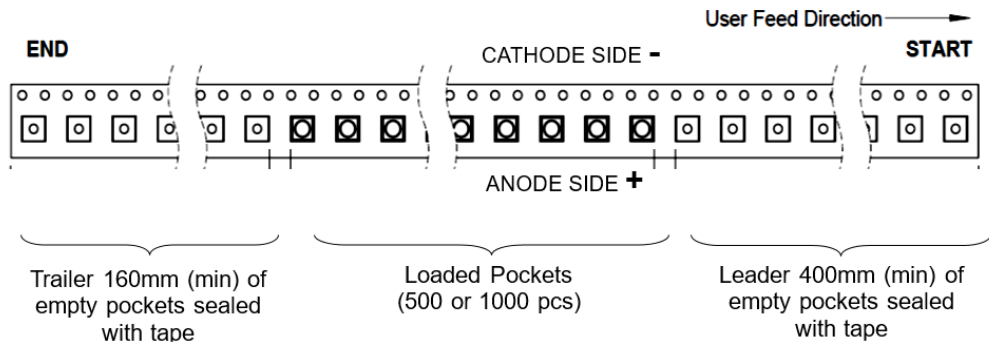
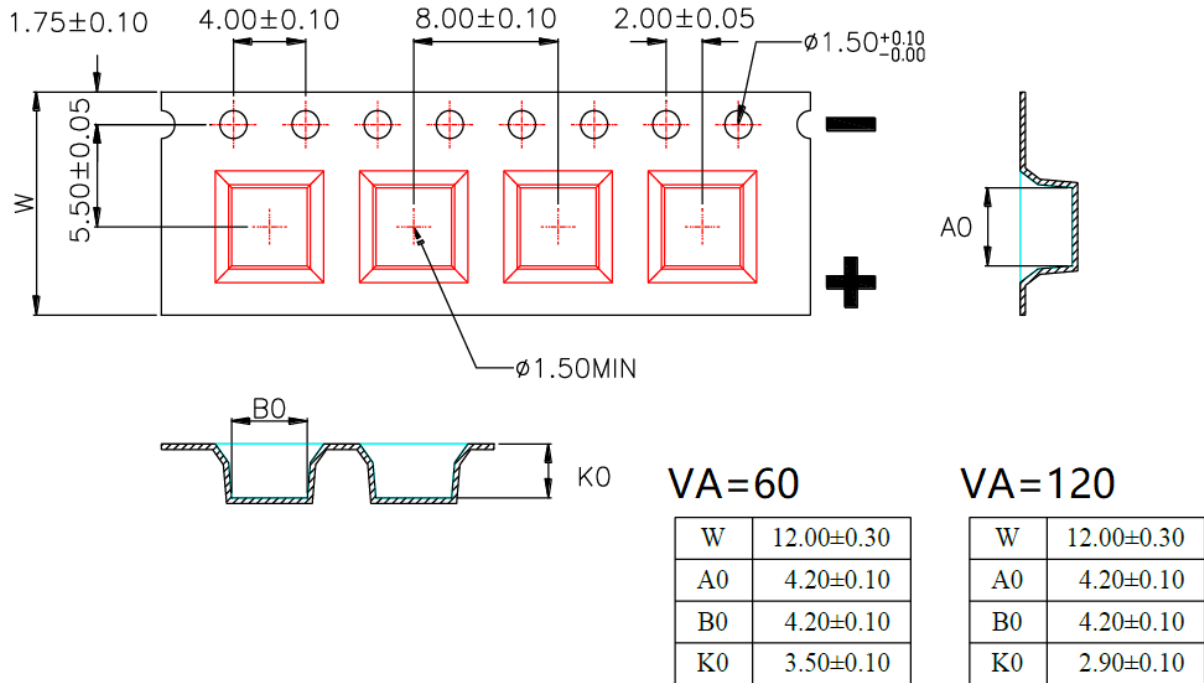


Suggest Stencil $t=0.12\text{mm}$

Unit: m

Packing

Tape and Reel:



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 |
|-------------------|-------------------|------------|-------------------|
| QBHP684E-IR1500A | QBHP684E-IR1500A | --- | 500 units |
| QBHP684E- IR1500B | QBHP684E- IR1500B | | 1000 units |

Revision History

| Description: | Revision # | Revision Date |
|---------------------------------------|------------|---------------|
| New Release of QBHP684E-IR1500_series | V1.0 | 06/19/2019 |
| Update Packing Information | V1.1 | 07/19/2019 |
| | | |
| | | |
| | | |

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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.