QT-Brightek Mid Power Series

2835 PLCC 2 IR LED

Part No.: QBHP686-IR4D

IR4: 740nm
D: 50mA

Table of Contents:

Introduction

Feature:

- Water clear lens
- Package in tape and reel
- AlGaAs technology
- Peak wavelength λ_P=740nm
- Viewing Angle = 120 deg typ.

Description:

This low profile 2835 IR LED has the height of 0.8mm. With the advantage of the fast response time and the high radiant intensity, the LED is ideal for infrared remote controls and data Transmission systems.

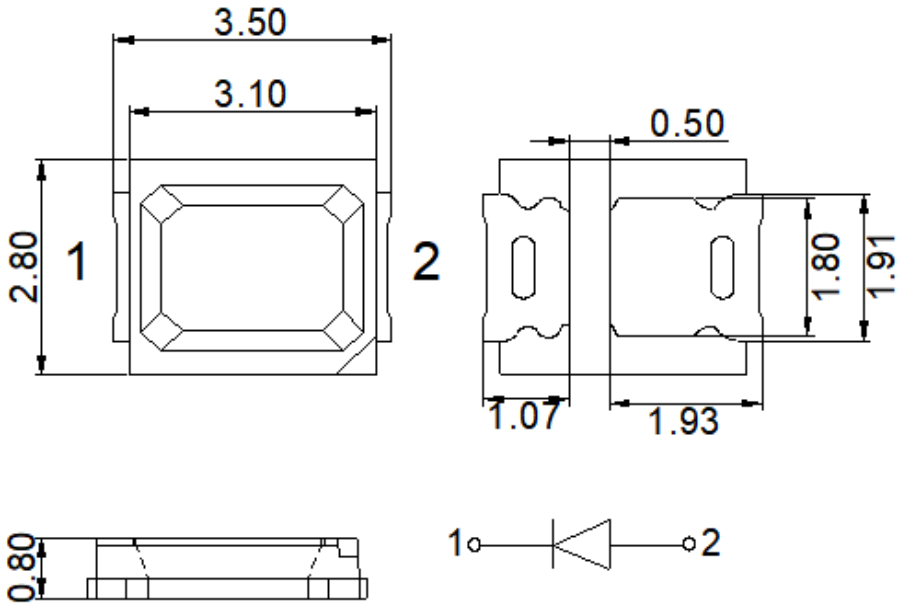
Application:

- Infrared Sensor
- Optoelectronic Switch
- Smoke detector
- Drive sensor

Certification & Compliance:

- TS16949
- ISO9001
- RoHS Compliant

Dimension:



Units: mm / tolerance = +/-0.2mm

Electrical / Optical Characteristic (Ta=25 ºC)

Product	Color	I_F (mA)	V_F (V)		λ_P (nm)			Ie (mW/sr)		
			Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.
QBLP686-IR4D	Infrared	50	1.8	2.4	730	740	750	5.6	6.75	-

Absolute Maximum Rating

Material	P_d (mW)	I_F (mA)	I_{FP} (mA)*	V_R (V)	T_{OP} (ºC)	T_{ST} (ºC)	T_{SOL} (ºC)**
AlGaAs	240	100	150	5	-40 ~ +80	-40 ~ +85	260

*Duty cycle=1%, Pulse width 100us
**IR Reflow for no more than 10 sec @ 260 ºC

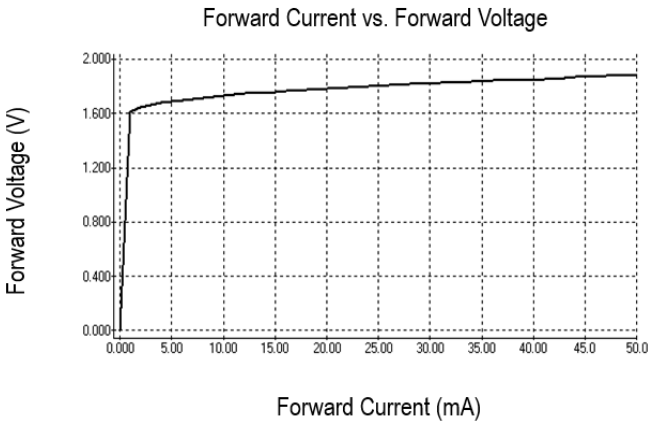
Forward Voltage V_F @ I_F=50mA

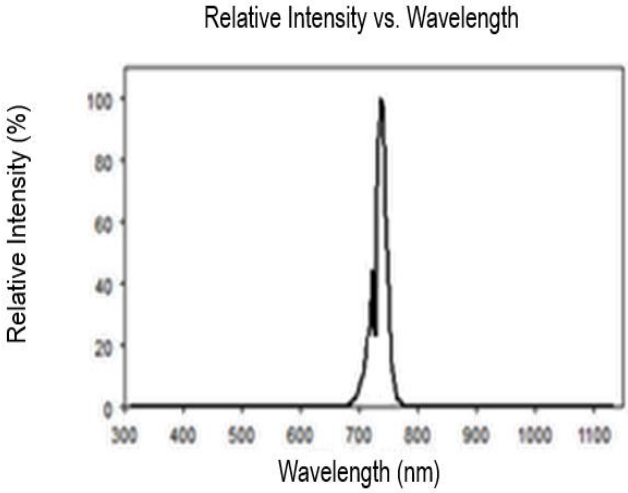
Bin	Min.	Max.	Unit
☐	1.4	2.4	V

Peak Wavelength λ_P @ I_F=50mA

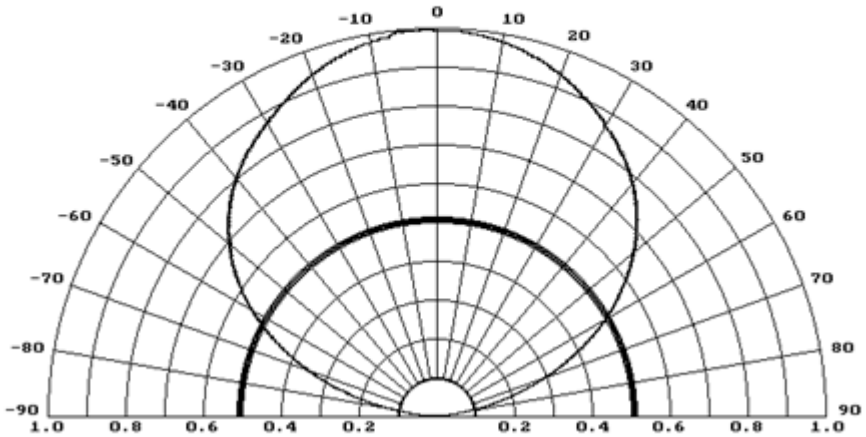
Bin	Min.	Max.	Unit
☐	730	750	nm

Characteristic Curves



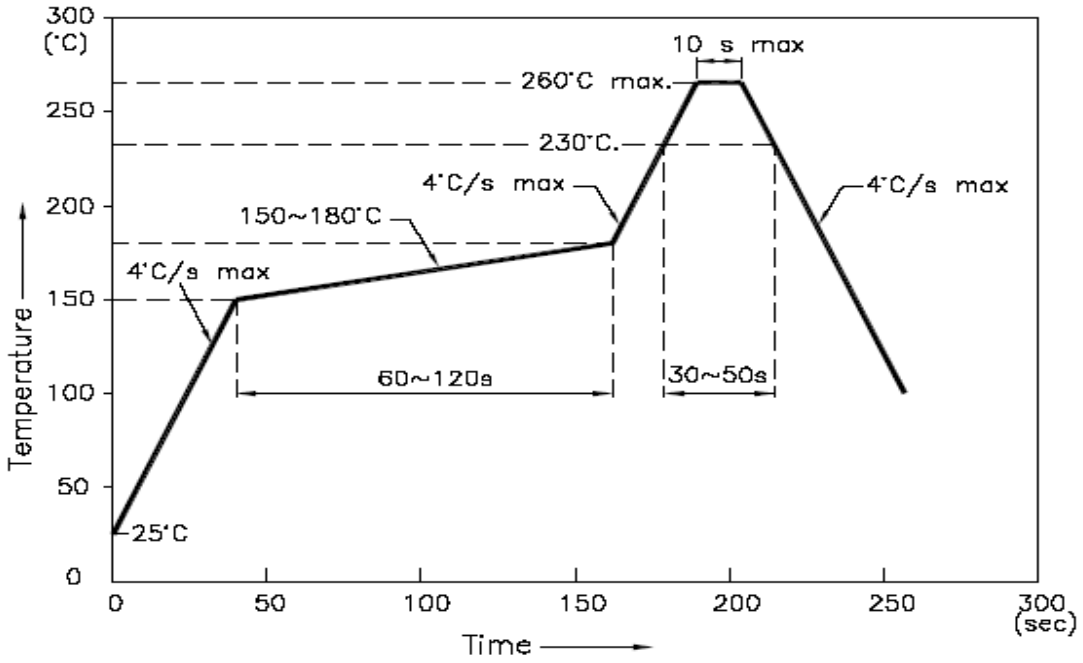


Directive Characteristics

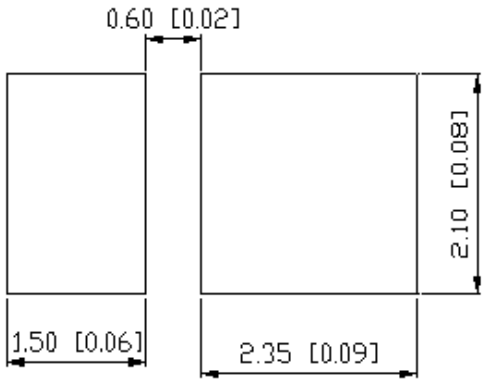


Solder Profile & Footprint

-The recommended reflow soldering profile is as follows (temperatures indicated are as measured on the surface of the LED resin):



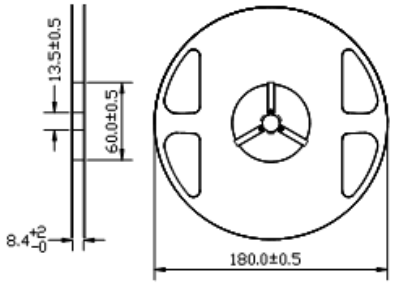
Recommended Pad Layout



Units: mm Tolerance: ± 0.2mm

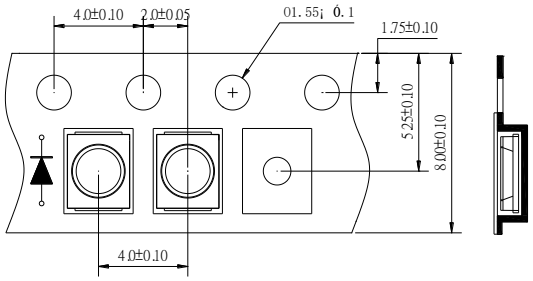
Packing

Reel Dimension:



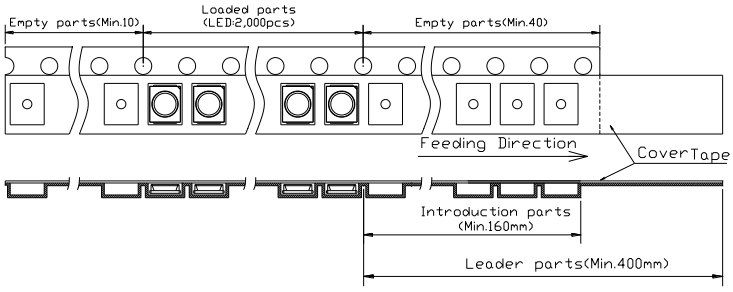
Unit: mm

Tape Dimension:

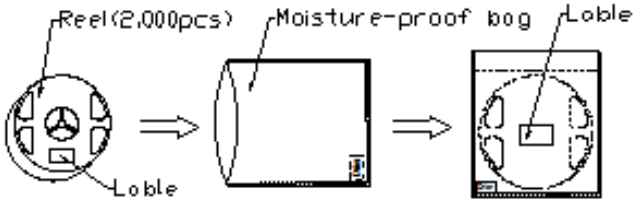


Unit: mm

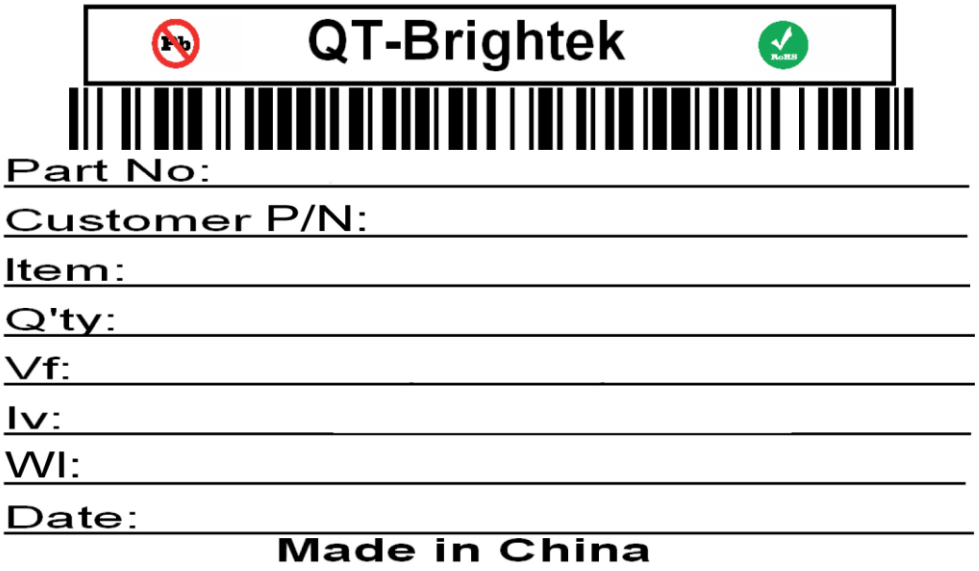
Arrangement of Tape:



Packaging Specification:



Labeling



Ordering Information

Part #	Orderable Part #	Spec Range	Quantity per reel
QBHP686-IR4D	QBHP686-IR4D	Ie=6.75mW/sr typ. @ I_F=50mA / λ_P=740nm typ.	2,000 units

Revision History

Description:	Revision #	Revision Date
New Release of QBHP686-IR4D	V1.0	06/23/2020

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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.