

QT-Brightek High Power Series

3W High Power UV LED

Part No.: QBHP682E-UVXXXS Series

XXX: UV Wavelength

S: 500mA

Table of Contents:

Introduction	3
Electrical / Optical Characteristic (Ta=25 °C)	4
Absolute Maximum Rating	4
Characteristic Curves.....	5
IR Reflow Soldering Profile	6
Packing	7
Labeling	8
Caution	8
Ordering Information.....	9
Revision History	10
Disclaimer	10

Introduction

Feature:

- 3W High Power UV LED
- Clear Lens
- Packed in tape and reel
- ESD rating: 8KV (HBM)
- Viewing Angle: 120°

Description:

This 3W high power UV LED has a height profile of 5mm.

Application:

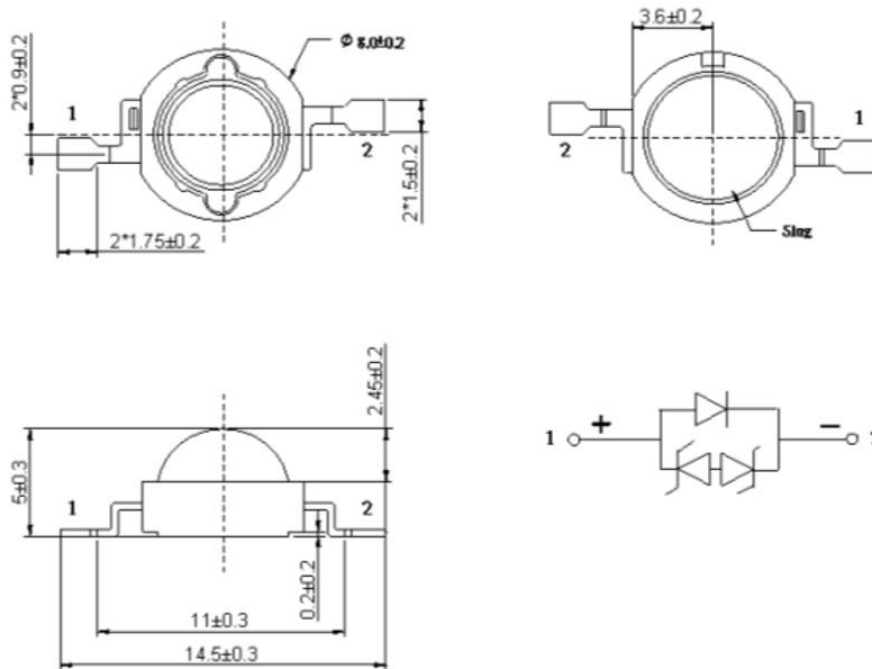
- UV curing
- UV marking
- Purification
- Inspection
- Sterilization and Disinfection

Certification & Compliance:

- TS16949
- ISO9001
- RoHS Compliant



Dimensions:



Units: mm / tolerance = +/-0.1mm

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.
QBHP682E-UV385S	UV	500	3.4	3.7	4.0	380	385	390	620	720	820
QBHP682E-UV395S						390	395	400			
QBHP682E-UV405S						400	405	410			
QBHP682E-UV415S						410	415	420			
QBHP682E-UV425S						420	425	430			

Absolute Maximum Rating

Material	P _d (W)	I _F (mA)	I _{FP} (mA)*	V _R (V)	T _{OP} (°C)	T _{ST} (°C)	T _{SOL} (°C)
InGaN	2.8	700	1000	5	-40 to +80	-40 to +100	260

*Duty 1/10 @ 10ms Pulse Width

Forward Voltage V_F @ I_F=500mA

Bin	Min.	Max.	Unit
V34	3.4	3.6	V
V36	3.6	3.8	
V38	3.8	4.0	

Radiometric Power P_O @ I_F=500mA

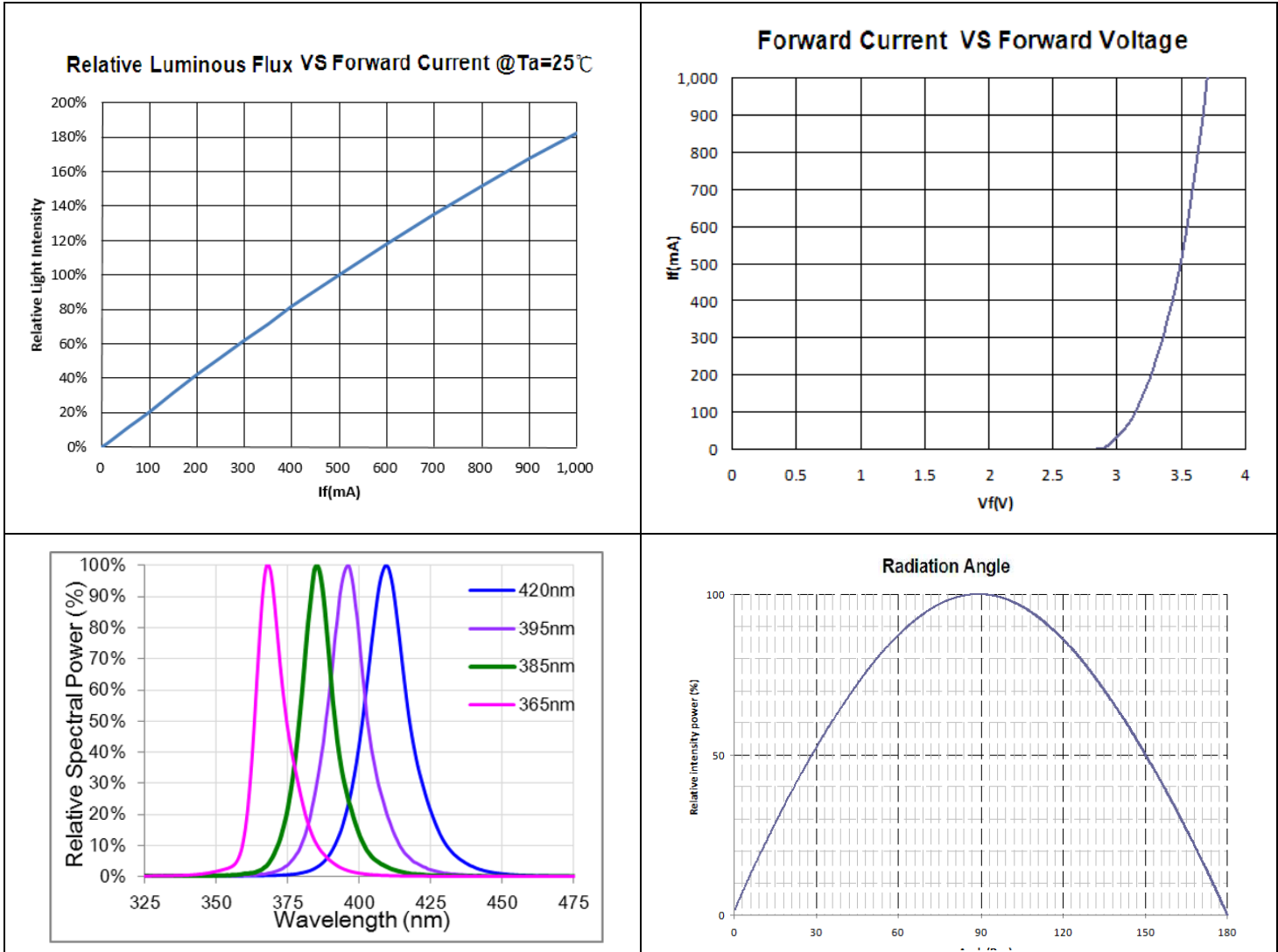
Bin	Min.	Max.	Unit
P64	620	660	mW
P68	660	700	
P72	700	740	
P76	740	780	
P80	780	820	

Tolerance of measurement of forward voltage: ±0.1V

Tolerance of measurement of luminous intensity: ±15%

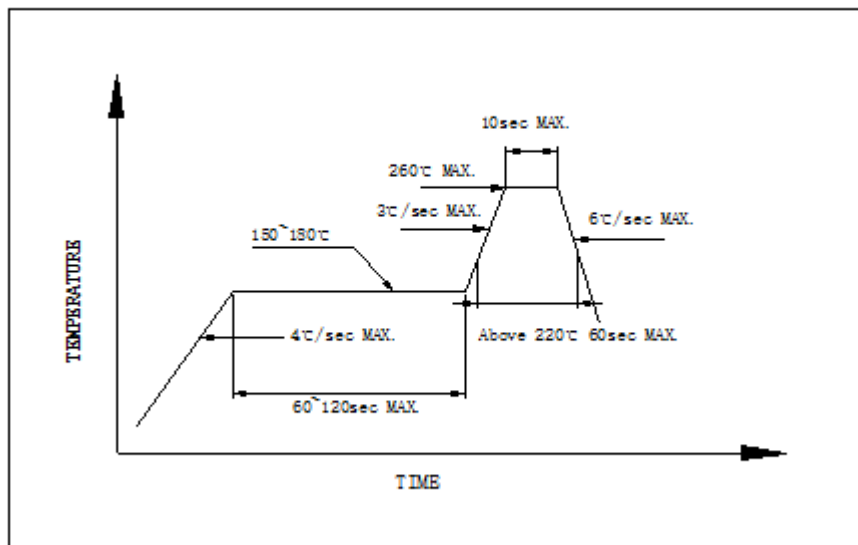
Tolerance of measurement of dominant wavelength: ±2nm

Characteristic Curves

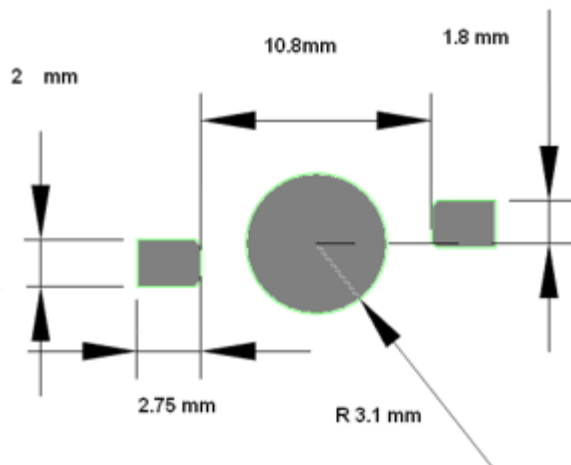


IR Reflow Soldering Profile

Recommended Pb-free Soldering Profile



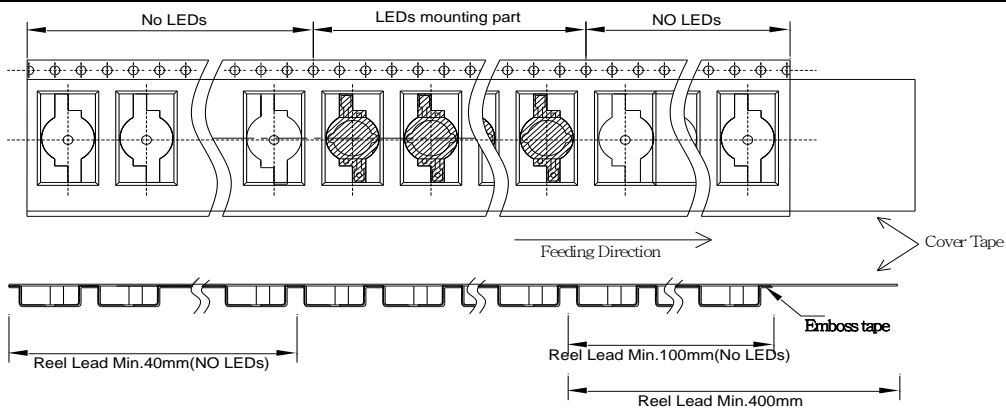
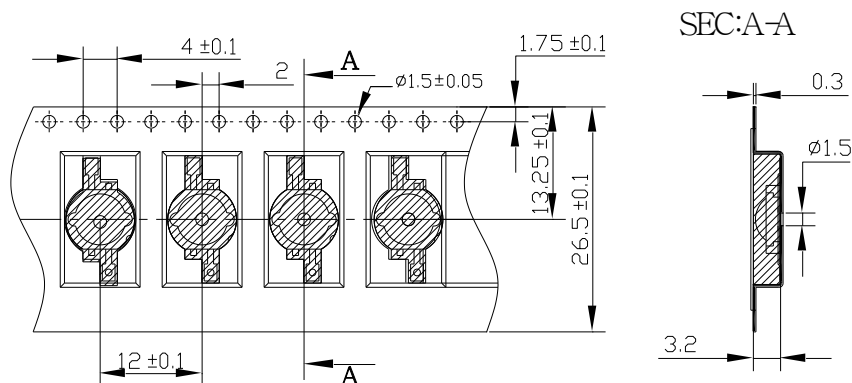
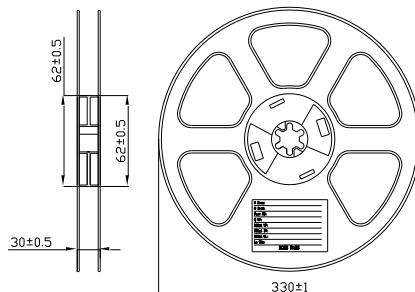
Recommended Soldering Pad:



Unit: mm
Tolerance: +/- 0.15mm

Packing

Tape and Reel:



Unit: mm

Labeling

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

Made in Taiwan**Caution**

	CAUTION
	<ul style="list-style-type: none"> • This UV LED during operation radiates intense UV light. • Do not look directly into the UV light during operation of the device. This can be harmful to the eyes even for brief period due to the intense UV light. • If viewing the UV light is necessary, please use UV filtered glasses to avoid damage by the UV light. • If the UV LED in your product might be viewed directly, please affix a caution label to your product to that effect. <p style="text-align: center;">Avoid direct eye exposure to UV light Keep out of reach of children</p>

Ordering Information

Part #	Orderable Part #	Spec Range	Quantity per reel
QBHP682E-UV385S	QBHP682E-UV385S	Po=720mW typ. @ I _F =500mA, λ _p =380nm to 390nm	500
QBHP682E-UV395S	QBHP682E-UV395S	Po=720mW typ. @ I _F =500mA, λ _p =390nm to 400nm	500
QBHP682E-UV405S	QBHP682E-UV405S	Po=720mW typ. @ I _F =500mA, λ _p =400nm to 410nm	500
QBHP682E-UV415S	QBHP682E-UV415S	Po=720mW typ. @ I _F =500mA, λ _p =410nm to 420nm	500
QBHP682E-UV425S	QBHP682E-UV425S	Po=720mW typ. @ I _F =500mA, λ _p =420nm to 430nm	500

Revision History

Description:	Revision #	Revision Date
New Release of QBHP682E-UVXXXS	V1.0	02/01/2016

Disclaimer

QT-BRIGHTTEK reserves the right to make changes without further notice to any products herein to improve reliability, function or design. QT-BRIGHTTEK does not assume any liability arising out of the application or use of any product or circuit described herein; neither does it convey any license under its patent rights, nor the rights of others.

Life Support Policy

QT-BRIGHTTEK's products are not authorized for use as critical components in life support devices or systems without the express written approval of QT-BRIGHTTEK. As used herein:

1. Life support devices or systems are devices or systems which, (a) are intended for surgical implant into the body, or (b) support or sustain life, and (c) whose failure to perform when properly used in accordance with instructions for use provided in the labeling, can be reasonably expected to result in a significant injury of the user.
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.