

QT-Brightek High Power Series

1W High Power 3939 UVC LED

Part No.: QBHP3939E-UV275YN

Y: Code for Viewing Angle Option

UV275: 270 to 280nm

N: 100mA

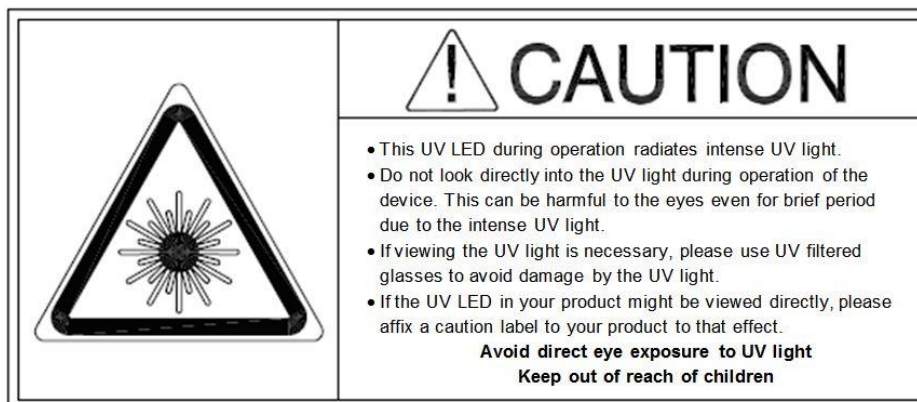


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Introduction

Feature:

- 1W High Power UVC LED
- Packed in tape and reel
- ESD rating: Class 3A (HBM)
- MSL 4
- Thermal resistance junction to solder point (Rth): 15°C/W typ.
- Viewing Angle Option:
A=60° typ. (Quartz Glass Lens)
B=120° typ. (Quartz Glass Lens)
C=30° typ. (Quartz Glass Lens)

Description:

This high power UVC LED has compact size of 3.9 x 3.9mm. It is ideal for various UV applications.

Application:

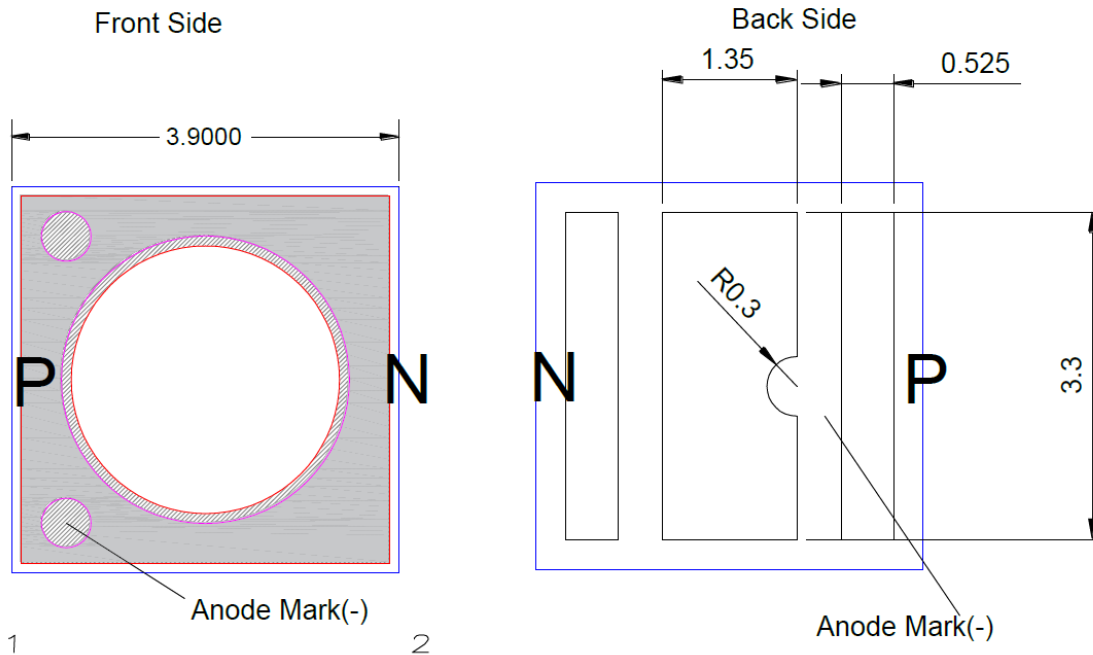
- Purification
- Sterilization and Disinfection

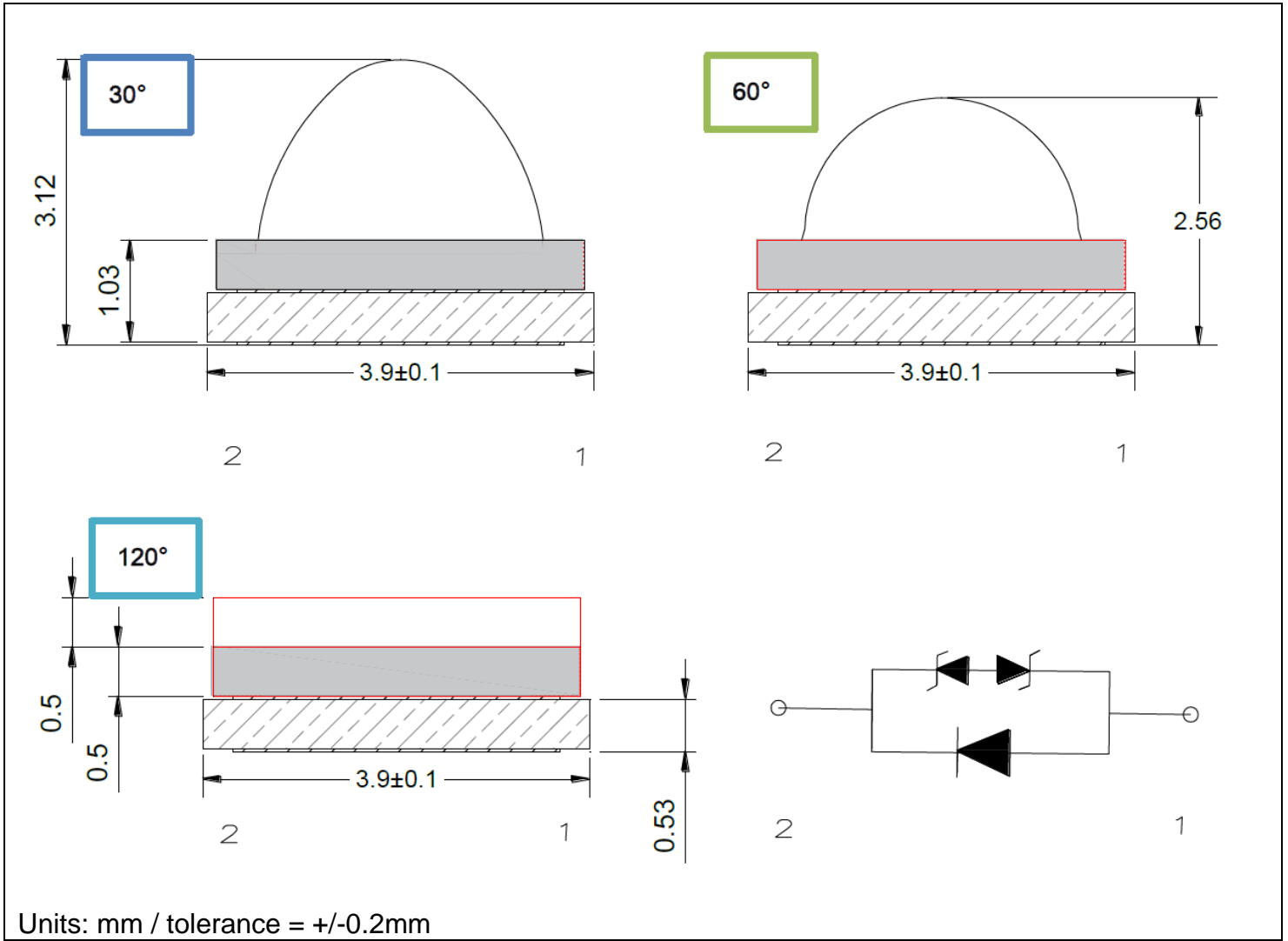
Certification & Compliance:

- TS16949
- ISO9001
- RoHS Compliant



Outline Dimensions:





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.
QBHP3939E-UV275AN	UVC	100	5.0	7.0	9.0	270	275	280	8	23	35
QBHP3939E-UV275BN											
QBHP3939E-UV275CN											

Absolute Maximum Rating

Material	P _d (W)	I _F (mA)	R _{th} (°C/W) Typ.	T _{OP} (°C)	T _{ST} (°C)	T _{SOL} (°C)
InGaN	1.2	130	15	-30 to +60	-40 to +80	245

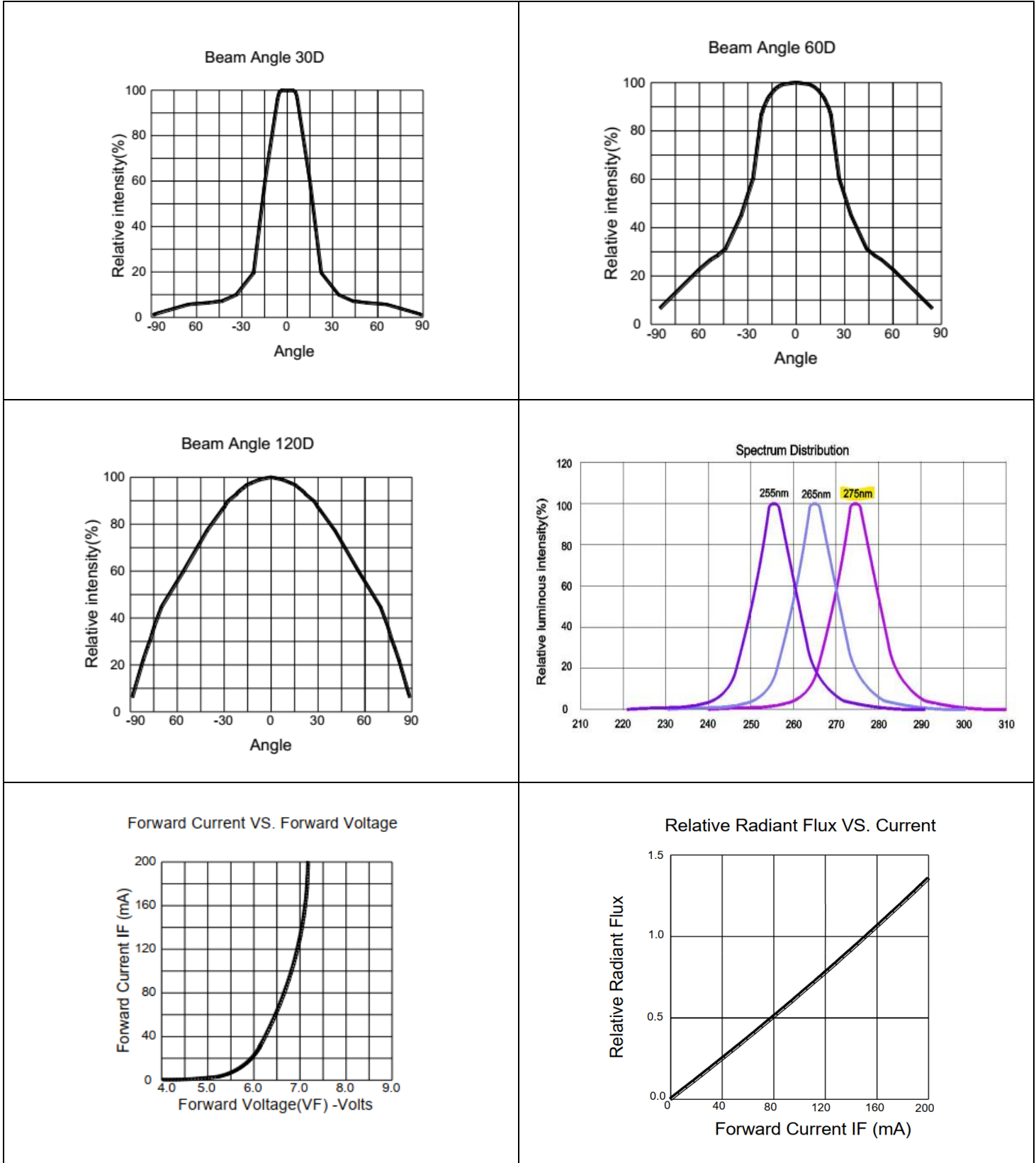
Forward Voltage V_F @ I_F=100mA

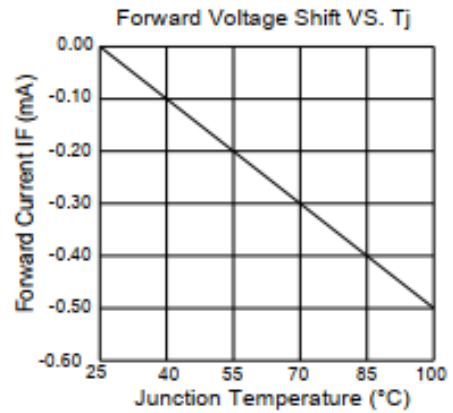
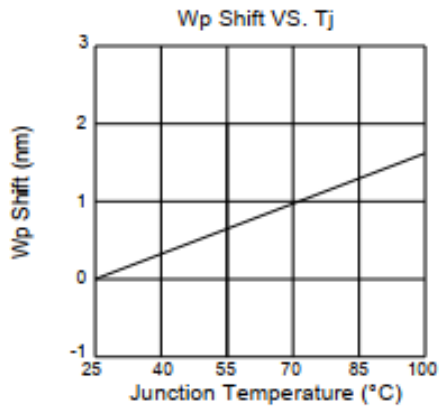
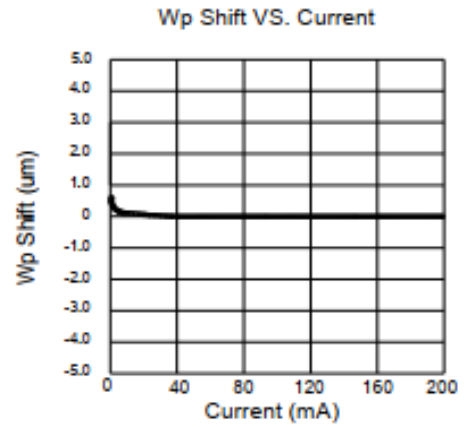
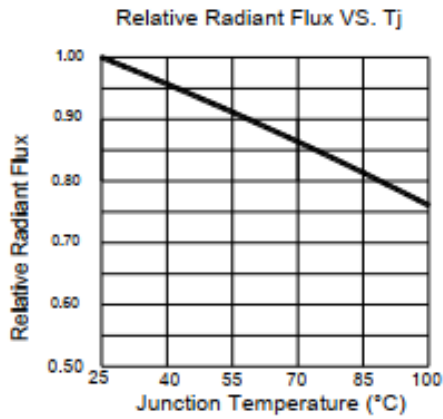
Bin	Min.	Max.	Unit
V1	5.0	7.0	V
V2	7.0	9.0	

Radiometric Power P_O @ I_F=100mA

Bin	Min.	Max.	Unit
H1	8	16	mW
H2	16	25	
H3	25	35	

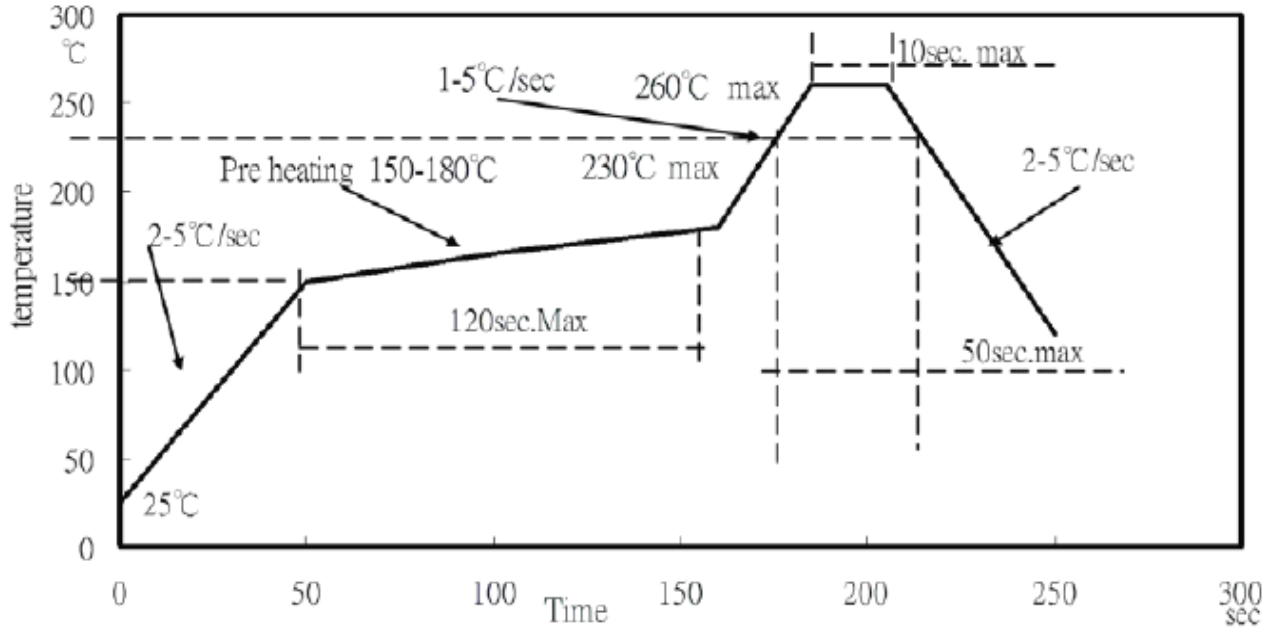
Characteristic Curves



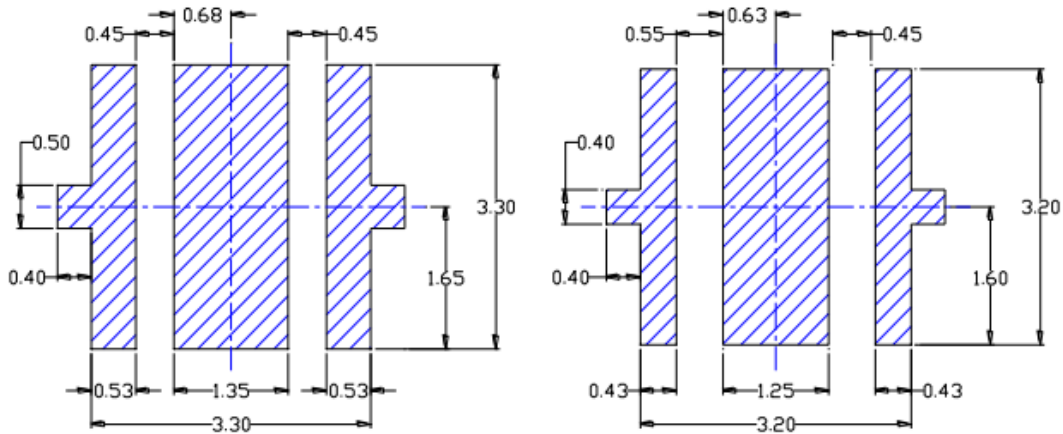


IR Reflow Soldering Profile

Lead Free solder



Recommended Soldering Pad:



RECOMMENDED PCB SOLDER PAD

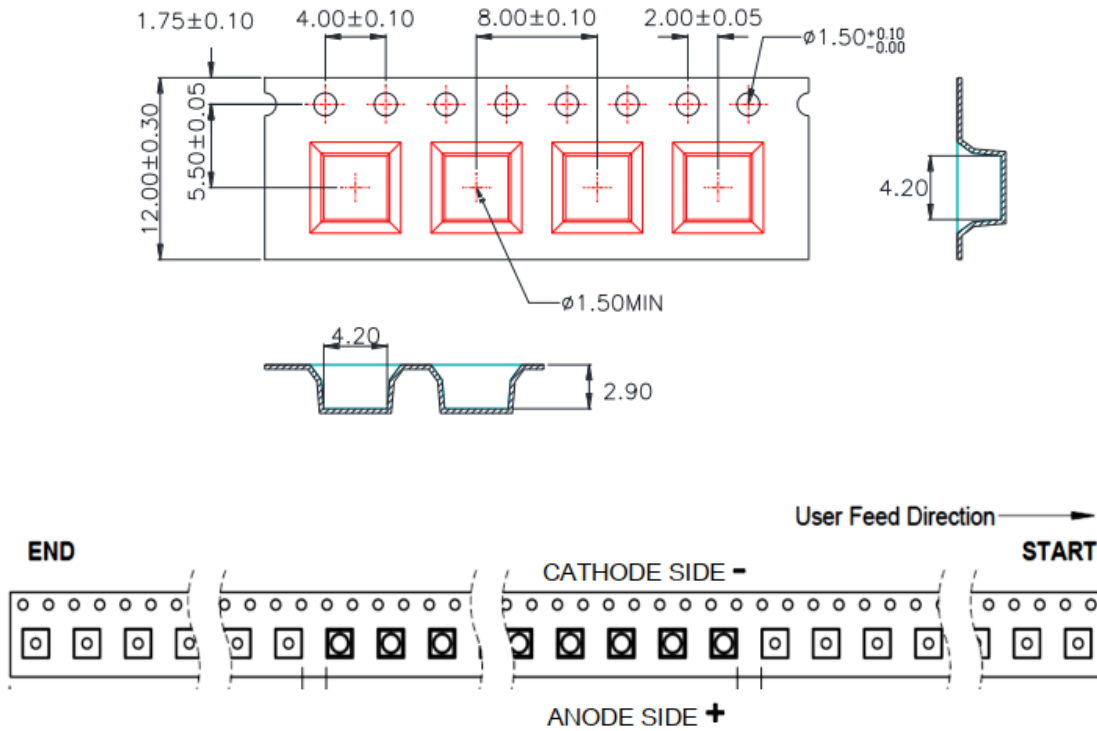
RECOMMENDED STENCIL PATTERN
(HATCHED AREA IS OPENING)

§ Suggest stencil t = 0.12 mm

Unit: mm

Packing

Tape and Reel:





Labeling



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

Made in Taiwan

Caution

	<div style="text-align: center; border-bottom: 1px solid black; margin-bottom: 10px;">  CAUTION </div> <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; margin-top: 10px;"> Avoid direct eye exposure to UV light Keep out of reach of children </p>
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Ordering Information

Part #	Orderable Part #	Spec Range	Quantity per reel
QBHP3939E-UV275AN	QBHP3939E-UV275AN	$P_o=23mW$ typ. @ $I_F=100mA$, $\lambda_p=270nm$ to $285nm$	100 units
QBHP3939E-UV275BN	QBHP3939E-UV275BN		
QBHP3939E-UV275CN	QBHP3939E-UV275CN		

Revision History

Description:	Revision #	Revision Date
New Release of QBHP3939E-UV280YH	V1.0	02/13/2020
Update WLP information	V1.1	06/01/2020
Update P/N due to sorting current update TO QBHP3939E-UV275YN	V1.2	05/17/2022
Update Radiometric Power bin	V1.3	06/14/2022

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.

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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.