Feature:

- Water clear lens
- Package in tube
- 1W High Power
- Low thermal resistance
- Super high flux and luminance
- AllnGaP Red/Yellow; InGaN Blue/Green

Description:

This 1W high power LED is 5mm height and 8mm diameter which is ideal in high current application.

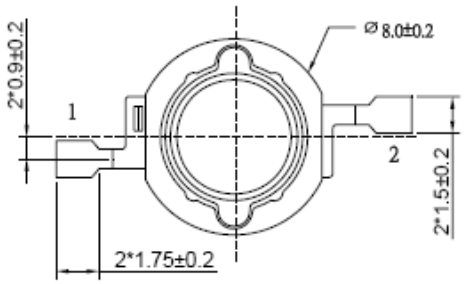
Application:

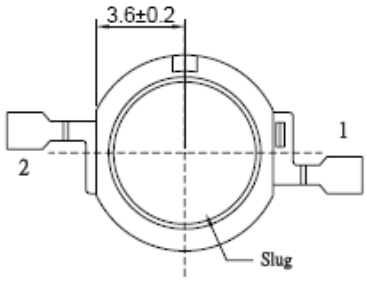
- Automotive lighting
- Architectural lighting
- TV backlight module
- Traffic lights
- Household appliances

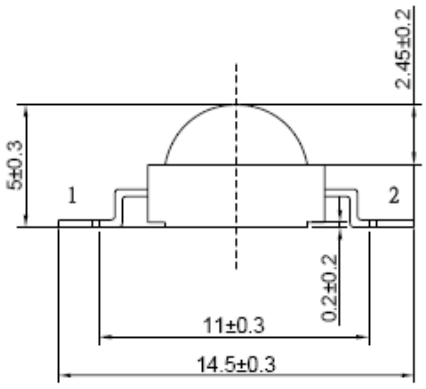
Certification & Compliance:

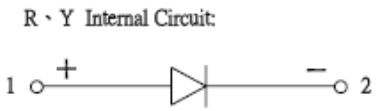
- TS16949
- ISO9001
- RoHS Compliant

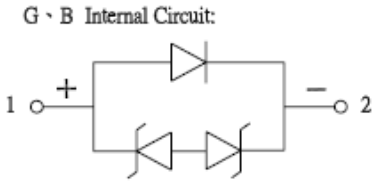
Dimension:











Units: mm / tolerance = +/-0.2mm

Electrical / Optical Characteristic (T_A=25°C)

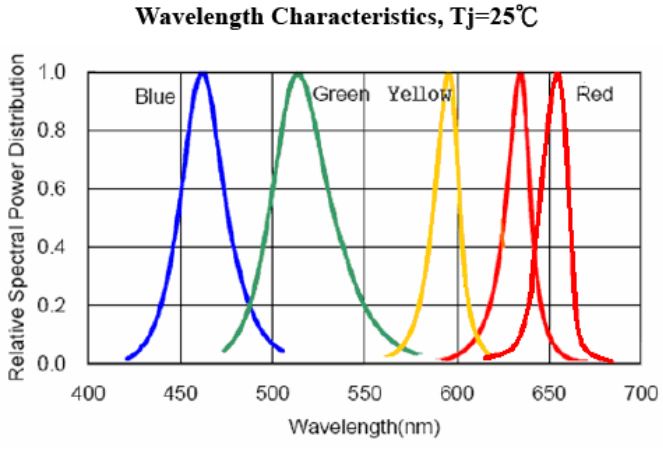
Product	Color	I_F(mA)	V_F(V)		λ(nm)			Φv(lm)	
			Typ.	max	λ_D	λ_P	Δλ	min	typ.
QBHP682-RU	Red	350	2.4	3.2	625	632	--	35	40
QBHP682-YU	Yellow	350	2.4	3.2	585	590	--	30	37
QBHP682-IBU	Blue	350	3.5	4.0	470	468	--	12	18
QBHP682-IGU	Green	350	3.5	4.0	525	518	--	50	70

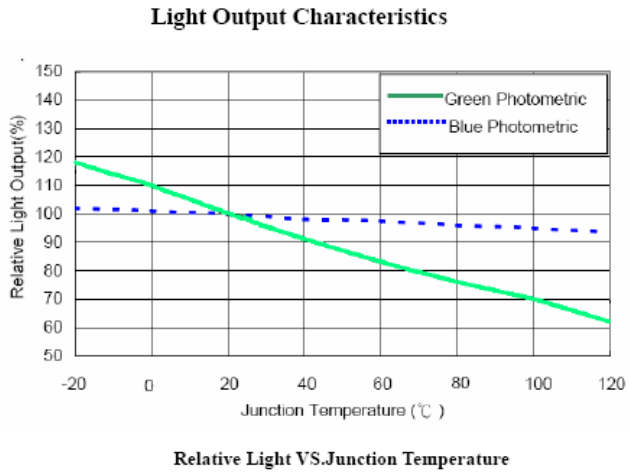
Absolute Maximum Rating

Product	Emit Color	P_d (mW)	I_F (mA)	I_{FP} (mA)*	V_R (V)	T_{OP} (°C)	T_{ST} (°C)	T_{SOL} (°C)**
QBHP682-RU	Red	1120	400	500	5	-30 to +85	-40 to +100	240
QBHP682-YU	Yellow							
QBHP682-IBU	Blue	1400						
QBHP682-IGU	Green							

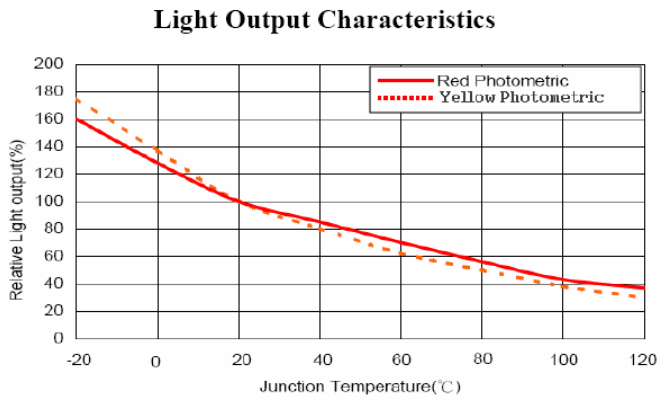
*Duty 1/10 @0.1ms Pulse Width
** IR Reflow for no more than 10 sec @ 240 °C

Characteristic Curves:

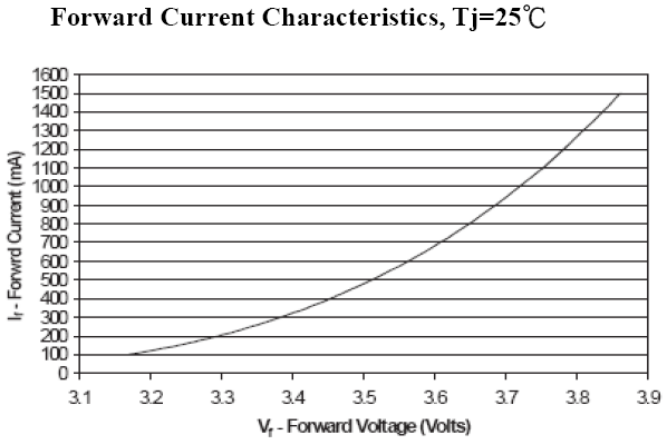




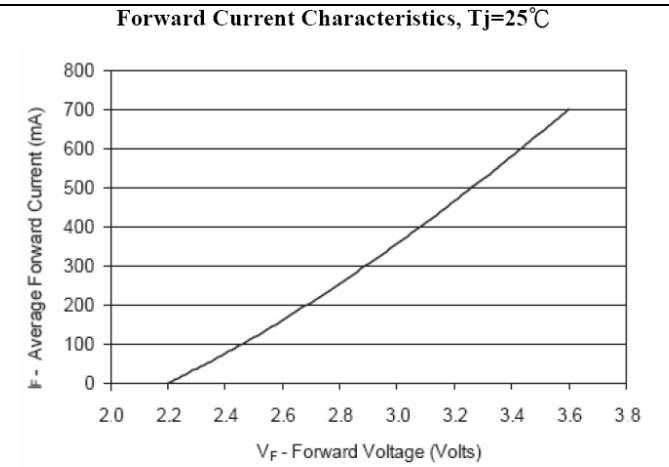
Relative Light VS.Junction Temperature



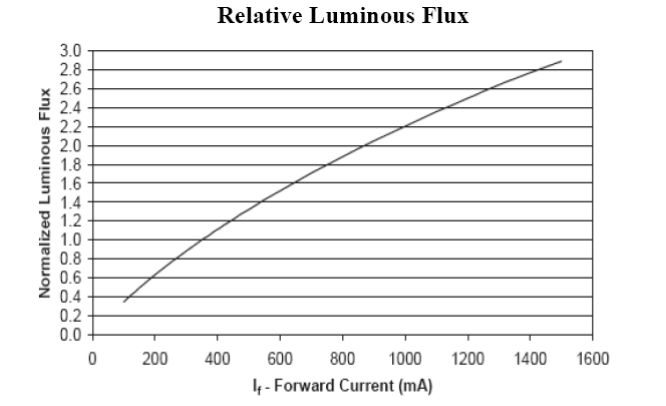
Relative Light Output VS. Junction Temperature



Forward Current VS.Forward Voltage for Blue and Green

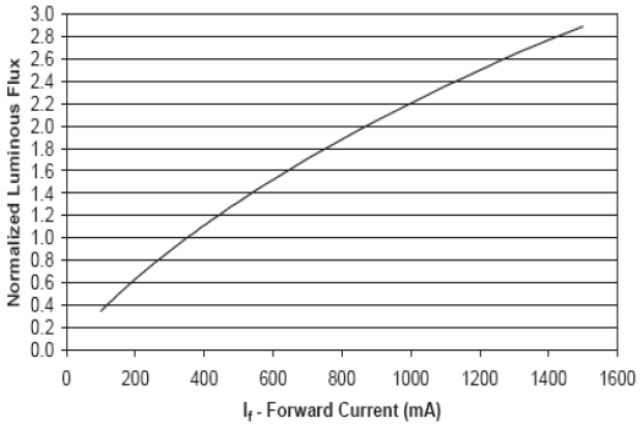


Forward Current VS.Forward Voltage for Red and Yellow



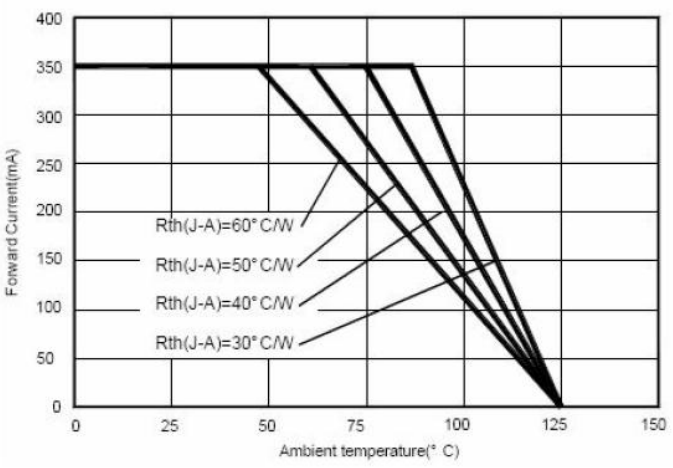
Relative Luminous Flux VS. Forward Current for Blue and Green at Tj=25℃ Test Current 350mA

Relative Luminous Flux



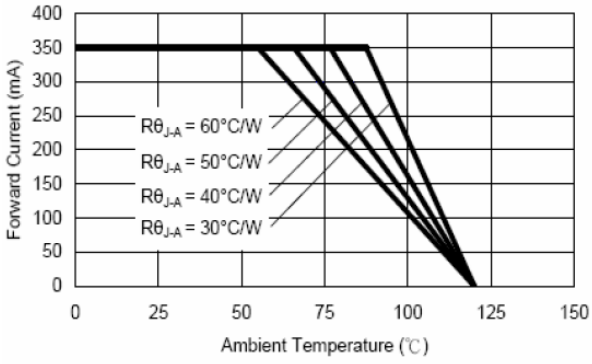
Relative Luminous Flux VS. Forward Current for Red and Yellow at Tj=25℃ Test Current 350mA

Current Derating Curves



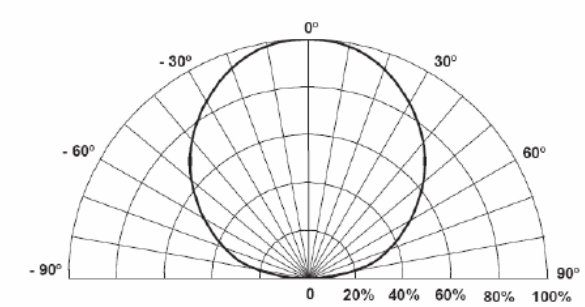
bassed on Tjmax=125℃ for Blue and Green

Current Derating Curves



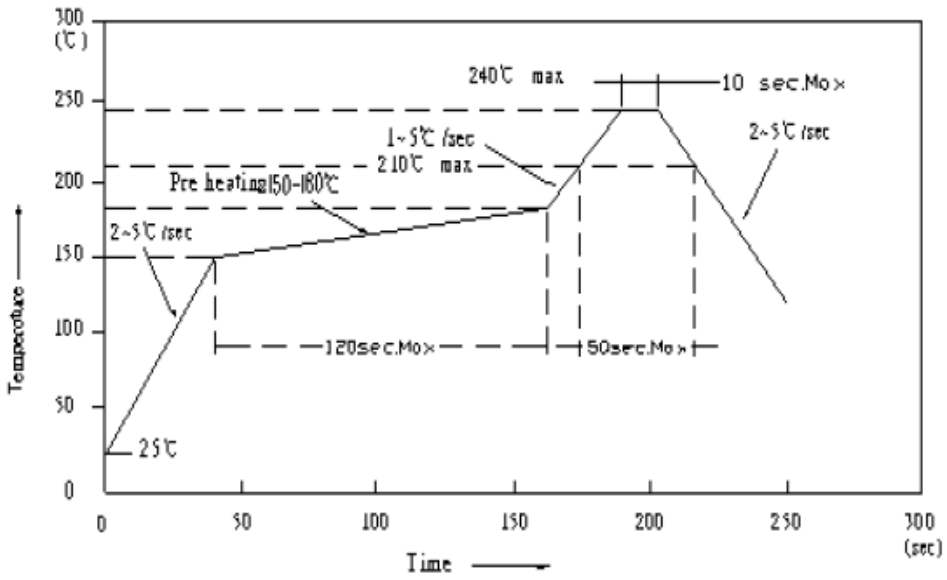
Maximum Forward Current VS. Ambient Temperature bassed on Tjmax=120℃ for Red and Yellow

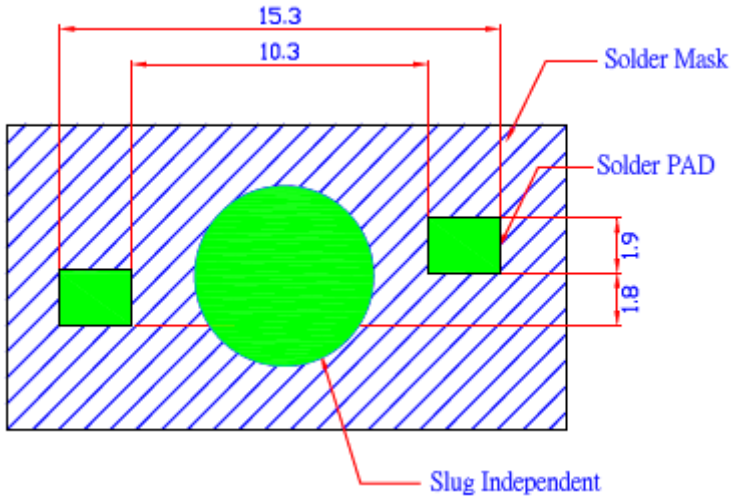
Typical Radiation Patterns



Typical Polar Radiation Pattern

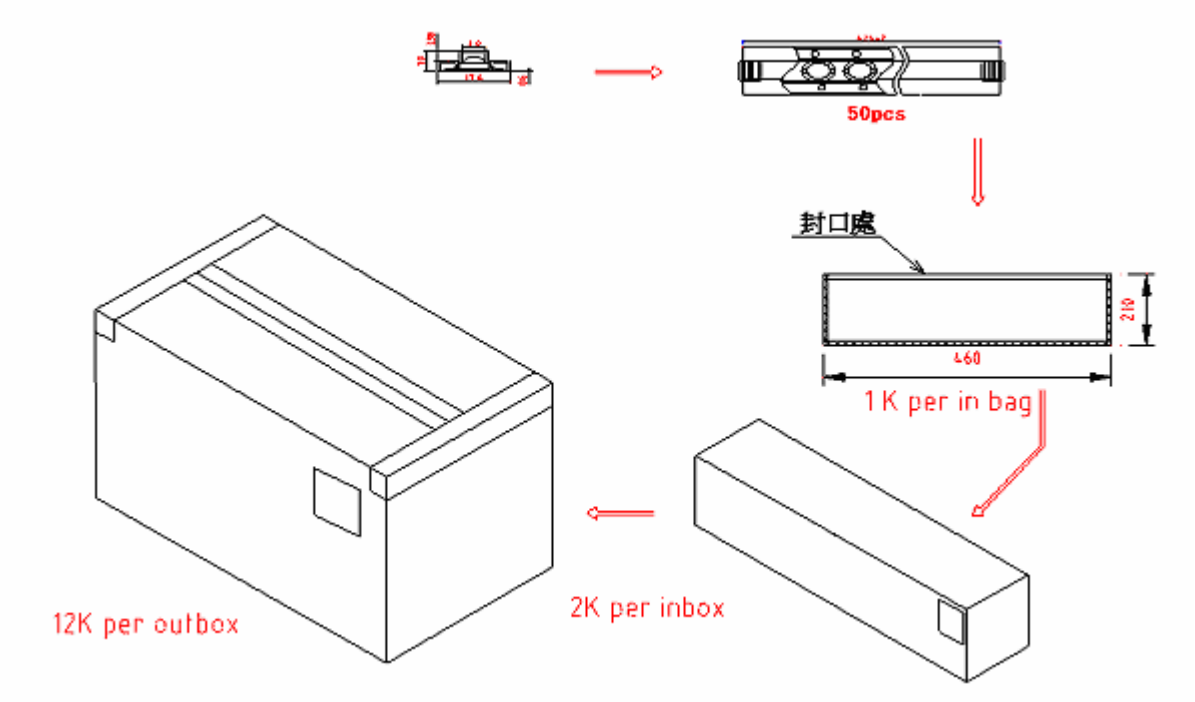
Solder Profile & Footprint:



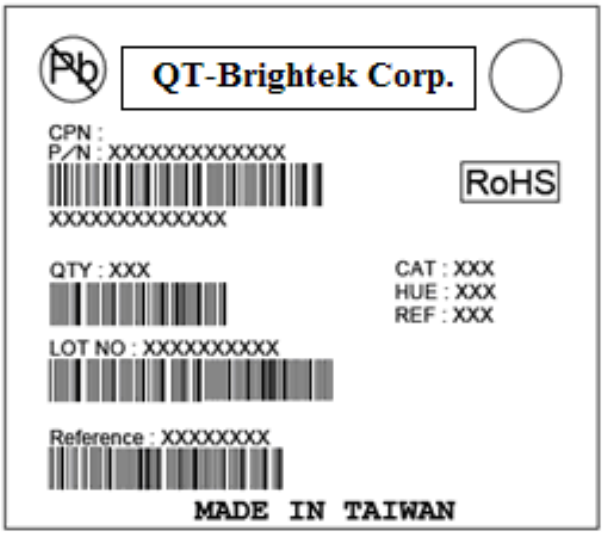


Units: mm tolerance: +/- 0.1mm

Packing:



Labeling:



Ordering Information:

Part #	Orderable Part #	Spec Range	Quantity per tube
QBHP682-RU	QBHP682-RU	Iv = 40.0 lm typ.	50 units
QBHP682-YU	QBHP682-YU	Iv = 37.0 lm typ.	50 units
QBHP682-IBU	QBHP682-IBU	Iv = 18.0 lm typ.	50 units
QBHP682-IGU	QBHP682-IGU	Iv = 70.0 lm typ.	50 units

Revision History:

Description:	Revision #	Revision Date
New Release of QBHP682 series	V1.0	5/7/2010
Information Updates	V1.1	1/13/2011
Data Updates	V1.2	4/05/2011

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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.