QT-Brightek Lamp Series

3mm Infrared Lamp

Part No.: QBEC5120

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Introduction

Feature:

- Water Clear lens
- Packed in bulk
- 3mm round type thru hole lamp
- AlGaAs/GaAs
- 20º viewing angle

Description:

These 3mm round type thru hole lamps with 5.8 mm lens height are suitable for infrared applied application

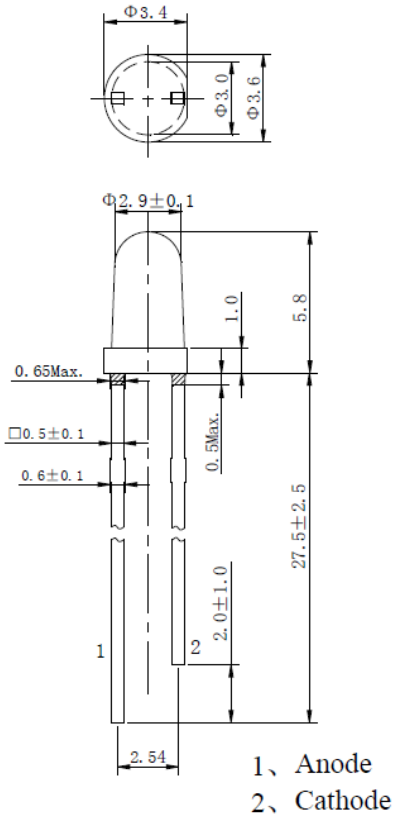
Application:

- Infrared applied system
- Optoelectronic switch
- Smoke Detector

Certification & Compliance:

- TS16949
- ISO9001
- RoHS Compliant

Dimension:



Units: mm / tolerance = +/-0.2mm

Electrical / Optical Characteristic (T=25 °C)

Parameter	Symbol	Output			Units	Test Conditions
		Min	Typ	Max		
Radiant Intensity	IE	30	40	70	mW/sr	I_F=50mA
Peak Wavelength	λ_P	920	940	960	nm	I_F=50mA
Forward Voltage	V_F	-	1.4	1.8	V	I_F=50mA
		-	-	3	V	I_F=0.6A, T_P=10us, T=1ms
Reverse Current	I_R	-	-	10	μA	V_R=5V
Viewing Angle	2 Θ1/2	-	20	-	deg	I_F=50mA

Absolute Maximum Rating

Material	**P_d (mW)**	**I_F (mA)**	**I_{FP}*(A)**	**V_R (V)**	**T_{OP} (°C)**	**T_{ST} (°C)**
AlGaAs/GaAs	150	100	1	5	-40 to + 80	-40 to +85

*Duty 1% @ 1kHz
** Wave Soldering for no more than 5 sec @ 260 °C

Radiant Intensity IE @ IF=50mA

Bin	Min.	Max.	Unit
1	30	35	mW/sr
2	35	50	
3	50	70	

Characteristic Curves

AlGaAs/ GaAs

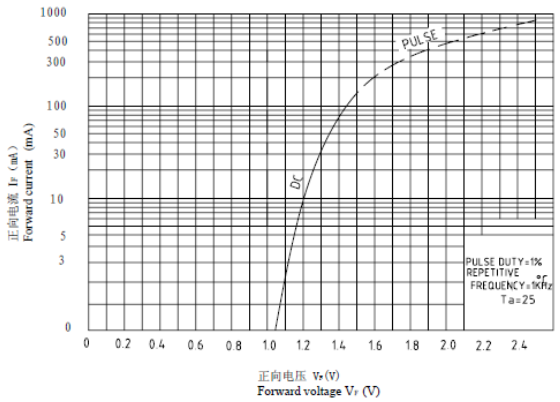


Fig.1 Forward Current vs. Forward Voltage

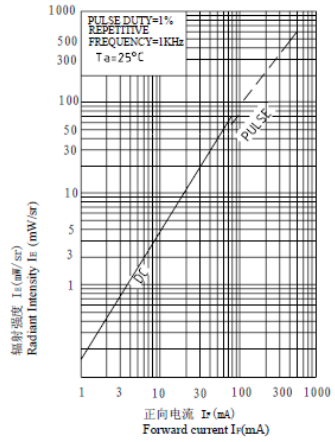


Fig.2 Radiant Intensity vs. Forward Current

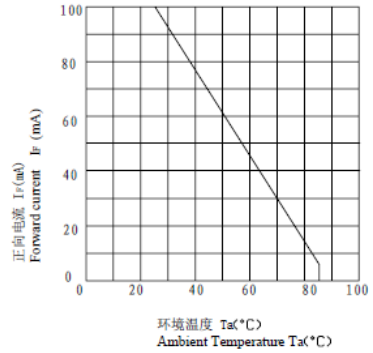


Fig.3 Forward Current vs. Ambient Temperature

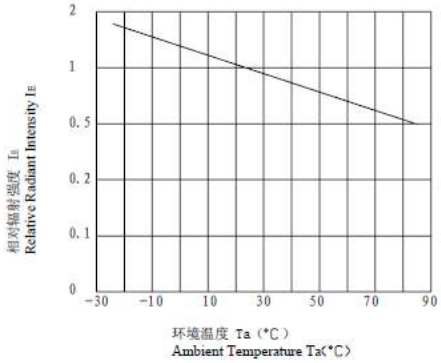


Fig.4 Relative Radiant Intensity vs. Ambient Temperature

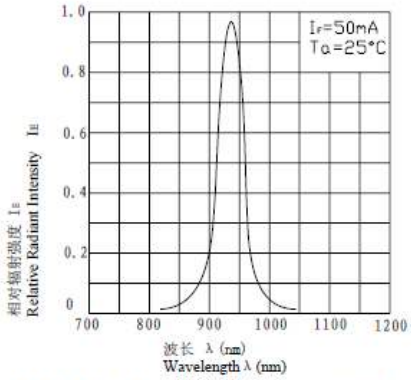


Fig.5 Relative Radiant Intensity vs. Wavelength

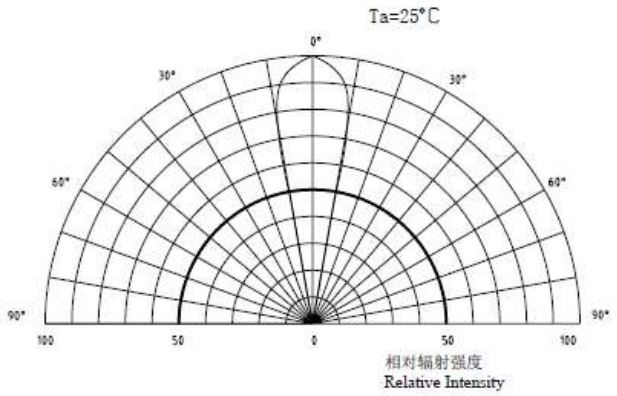


Fig.6 Relative Radiant Intensity vs. Angular Displacement

Ordering Information

Part #	Orderable Part #	Spec Range	Quantity per bag
QBEC5120	QBEC5120	IE =40 Typ. mW/sr λ_P=940 Typ. nm	500

Revision History

Description:	Revision #	Revision Date
New Release of QBEC5120	V1.0	05/01/2015

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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.