



QLIR02DXDD



Product Outline:

QLIR02DXDD is an infrared LED, package dimension is $\varnothing 3\text{mm}$ lamp, 940nm emitting diode in AlGaAs/GaAs with high speed and high radiant power. This emitter works well as a pair with our QLPD02DXJ.

Features:

- With water clear lens
- Infrared 3mm round lamp
- 30° Viewing angle
- RoHS compliant
- Custom Bin available upon special request

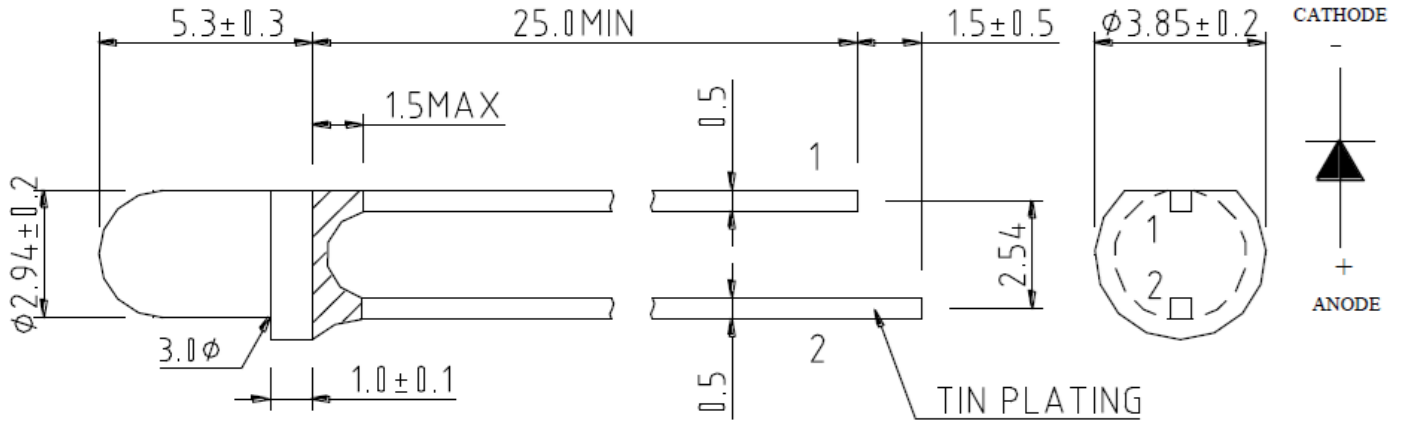
Application:

- Electronic signs and electronics board
- Industrial application
- Paper counting applications.... etc

Compliance and Certification:



■ Mechanical Property:
(Dimension)



SIGN : 1.CATHODE
2.ANODE

Tolerance is $\pm 0.25\text{mm}$ unless otherwise specified.

■ General info

Model No.	Material	Lighting Color	Resin Color
QLIR02DXDD	AlGaAs/GaAs	Non-Visible	Water Clear



■ ABSOLUTE MAXIMUM RATINGS AT Ta=25°C

Characteristic	Symbol	Rating	Unit
Forward direct current	IFM	100	mA
Reverse voltage	VRM	5	V
Operating temperature	Topr	-40 to +85	°C
Storage temperature	Tstg	-40 to +100	°C
Power dissipation	Pd	170	mW

■ ELECTRO-OPTICAL CHARACTERISTICS AT Ta=25°C

Characteristic	Symbol	Condition	Min.	Typ.	Max.	Unit
Radiant Intensity	Ie	IF=50mA		65		mW/sr
Forward Voltage	Vf	IF=100mA		1.3	1.7	V
Reverse current	Ir	Vr=5V			10	μA
Peak emission wavelength	λp	IF=50mA		940		nm
Spectral band width @ 50%	▲λ	IF=50mA		50		nm
Rise time / Fall time	Tr/Tf	IF=50mA		2000/1000		ns
Viewing angle	2θ 1/2	IF=50mA		30		Deg

*Radiant Intensity Measurement allowance is ±15%

** Forward voltage Measurement allowance is ±0.05V

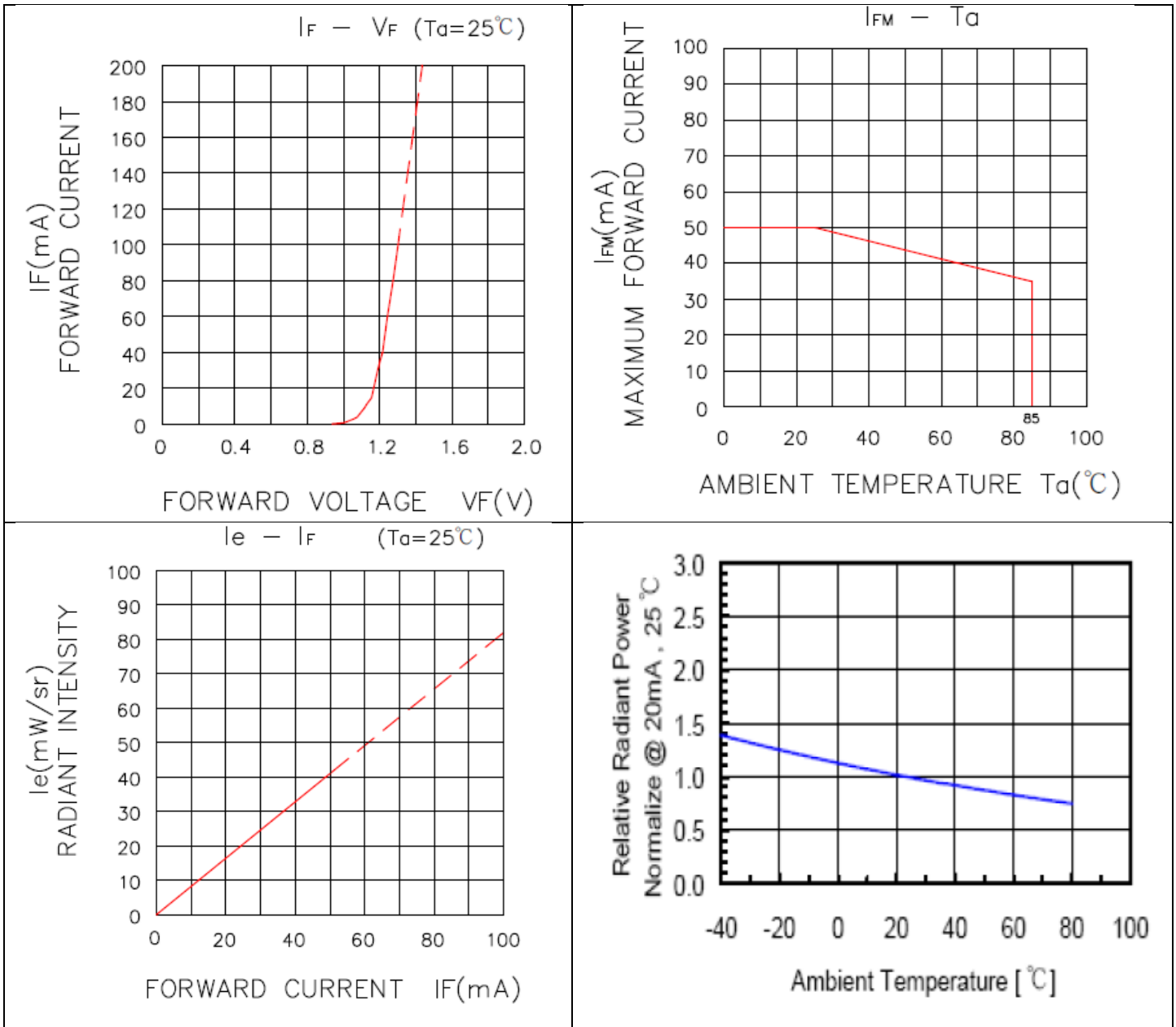
*** Peak emission wavelength Measurement allowance is ±1nm

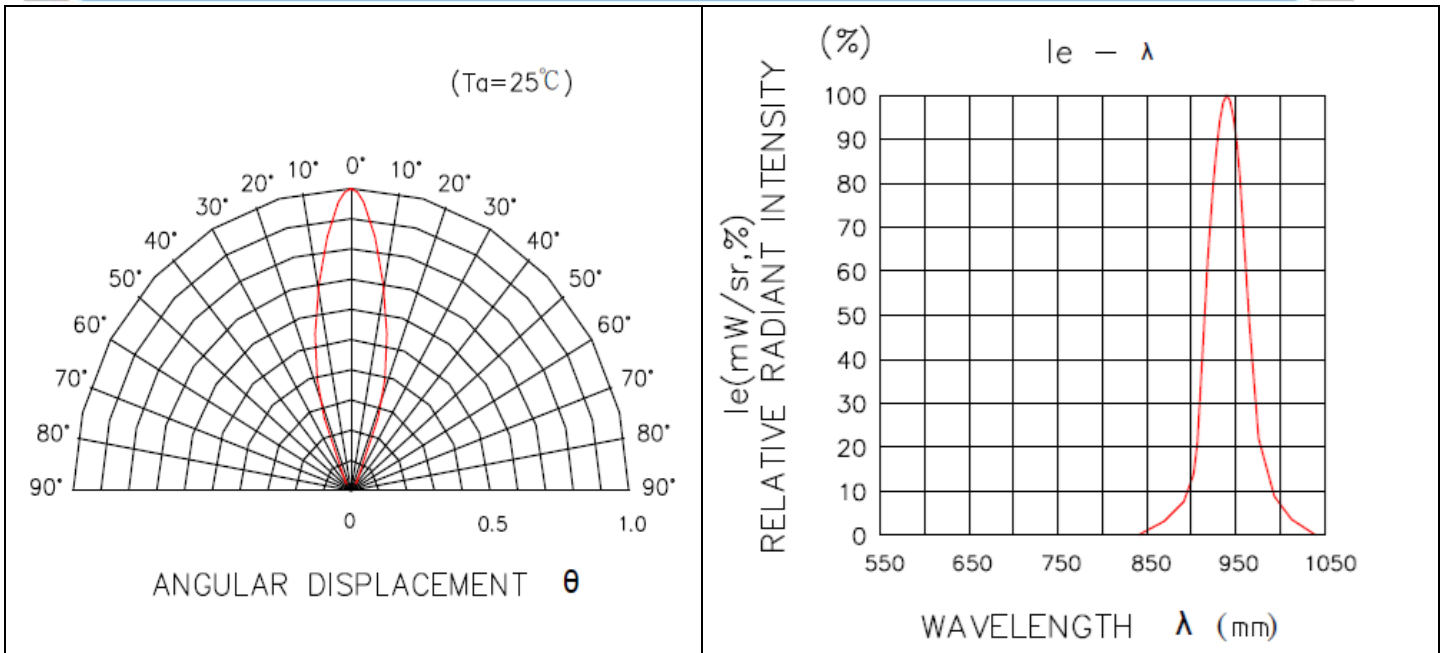
■ Radiant Intensity bin:

Bin code	Condition	Min	Max	Unit
2	If = 50mA	20	30	mW/sr
3		30	41	
4		41	65	
5		65	100	



■ Characteristic Curves

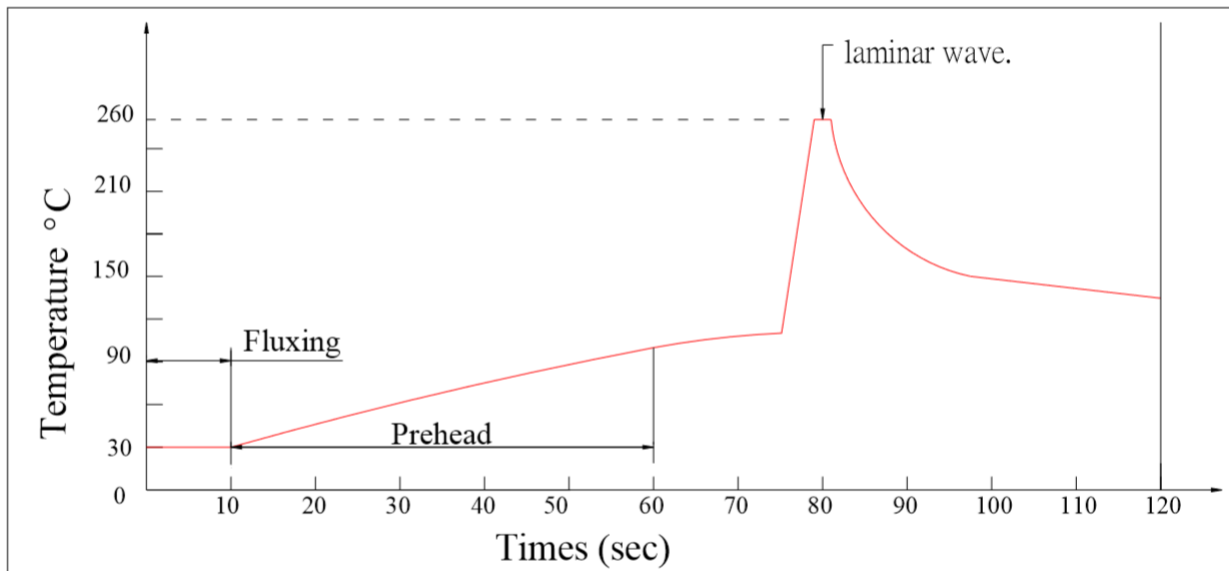




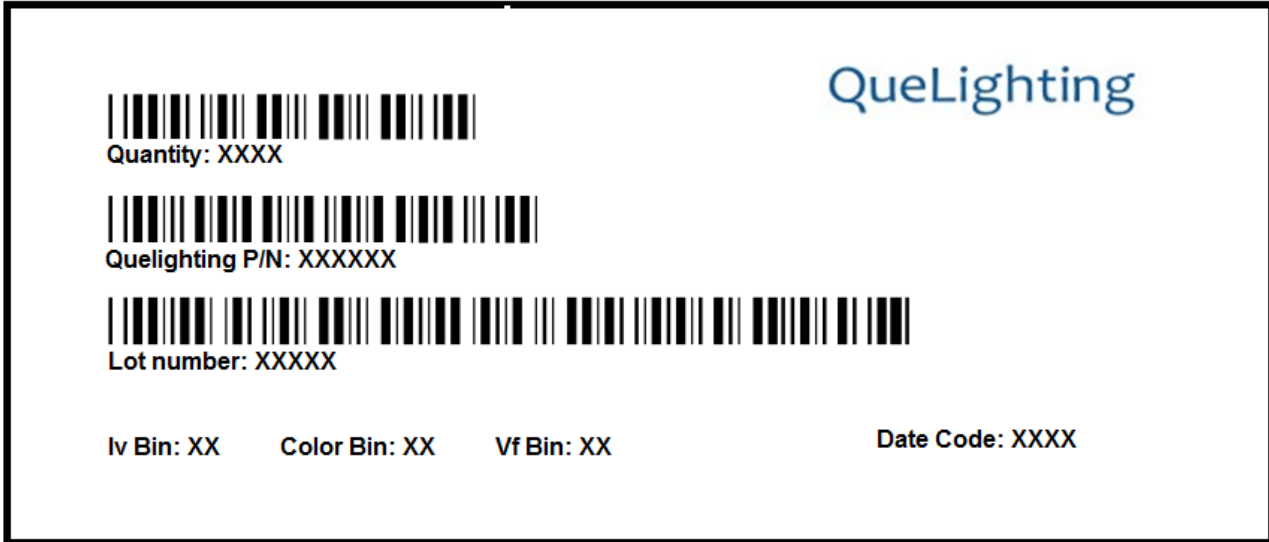
■ Solder Profile:

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

Shape	Lead Frame Type
Hand soldering	1.Temp.at tip of iron : 300 °C max.(30W max.) 2.Soldering time : 3 sec max. 3.Distance : 3 mm MIN (from solder joint to case)
DIP soldering	1.Preheat temp : 100 °C max , 60 sec max. 2.Bath temp : 260 °C max. 3.Bath time : 3 sec max. 4.Distance : 3 mm MIN (From solder joint to case)
Recommended soldering profile	1.Preheat temp. : 100 °C , 50 sec max. 2.Peak temp. : 260 °C max. 3.Peak time : 3 sec max. 4.Duration above: 200°C , 3 sec max.



Labeling



Ordering Information:

Part #	Multiple Quantities	Quantity per packing
QLIR02DXDD		1000 per bag



Revision History:

Revision Date:	Changes:	Version #:
6-12-2015	Initial release	1.0

