



QLIR05DYAM  
PLCC 4 940nm



## Product Outline:

This is PLCC-4 series with high output reflector type 3528 LEDs are available in Infrared Emitter. With special binning technology, Quelighting is able to provide special binning for customer's needs

## Features:

- High brightness output @ 100mA
- Package Dimension = 3.5mmX2.8mmX1.9mm
- PLCC-4 940nm LED
- RoHS compliant
- Custom Bin available upon special request

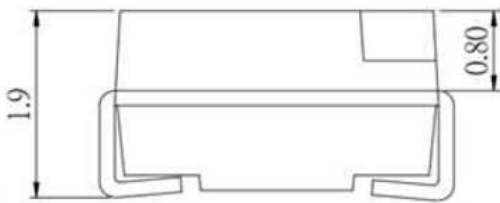
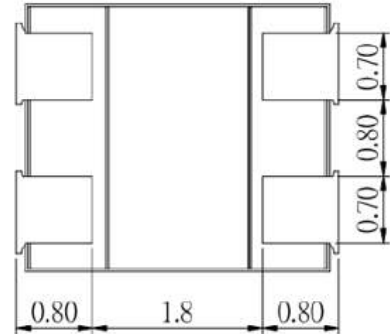
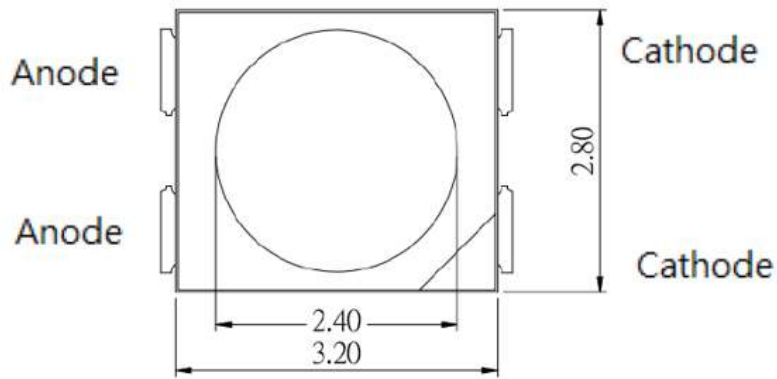
## Application:

- Mechanically and spectrally matched to the phototransistor
- Infrared Illumination for cameras
- Sensor technology
- Gesture Recognition
- Surveillance

## Compliance and Certification:

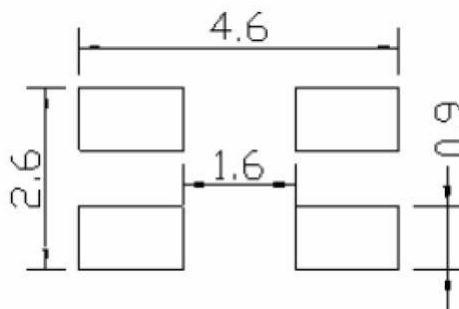


### Mechanical Property: (Dimension)



Units: mm

### Recommended Solder footprint:



Units: mm



## Electrical / Optical Characteristic

(T=25°C)

Product	Color	I <sub>F</sub> (mA)	V <sub>F</sub> (V)		λ <sub>p</sub> (nm)			I <sub>v</sub> (mW)	
			Typ.	max	Min.	Typ.	Max.	min	typ.
QLIR05DYAM	Infrared	100	1.5	2.0		940		10	16

- (1) The Forward Voltage tolerance is  $\pm 0.1V$
- (2) The  $\lambda D$  tolerance is  $\pm 1nm$
- (3) The I<sub>v</sub> tolerance is  $\pm 7\%$

## Absolute Maximum Rating

(T=25°C)

Part #	P <sub>d</sub> (mW)	I <sub>F</sub> (mA)	I <sub>FP</sub> (mA)*	V <sub>R</sub> (V)	T <sub>OP</sub> (°C)	T <sub>ST</sub> (°C)	T <sub>SOL</sub> (°C)**
Infrared	200	100	100	5	-40 – 85	-40 - 100	260

\*Duty 1/10 @ 10Khz

\*\* Junction Temperature

\*\*\* IR Reflow for no more than 10 sec @ 260 °C

\*\*\*\* Thermal resistance is calculated from junction to solder

## Forward Voltage (V<sub>F</sub>) Bin:

VF rank @ 100mA			
Code name	Min.	Max.	Unit
L6	1.4	2.0	V

The forward voltage tolerance is  $\pm 0.1V$

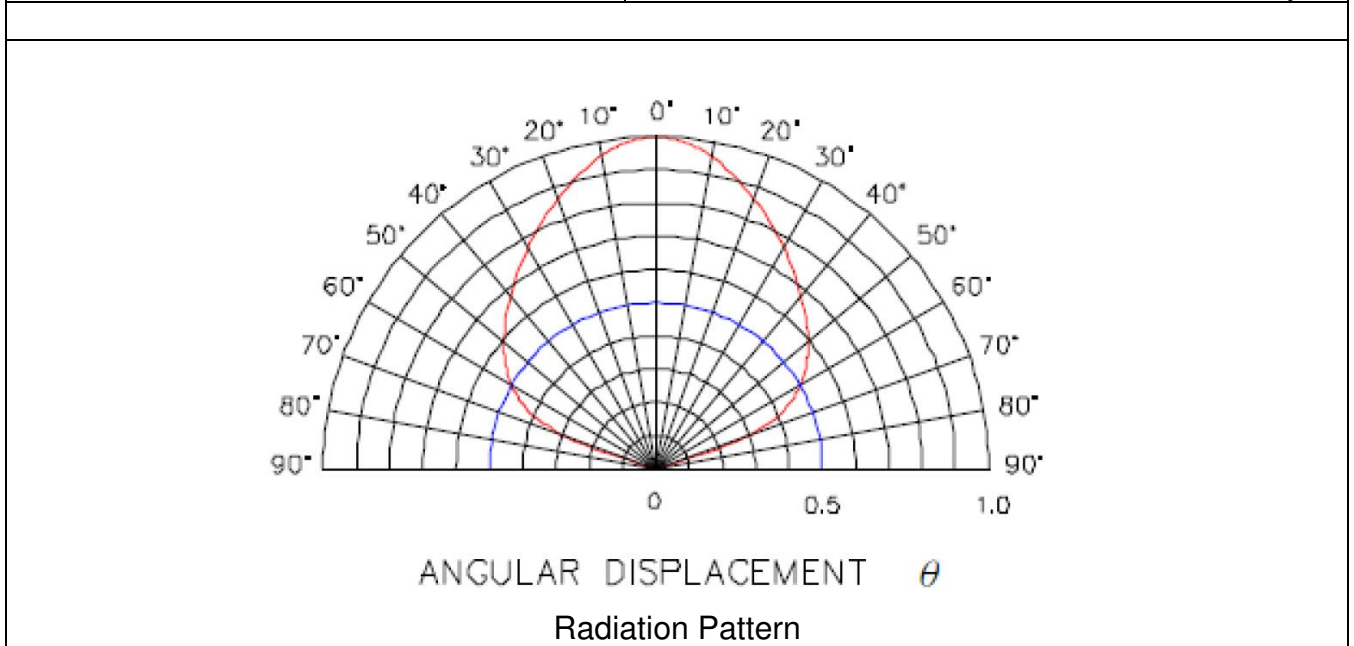
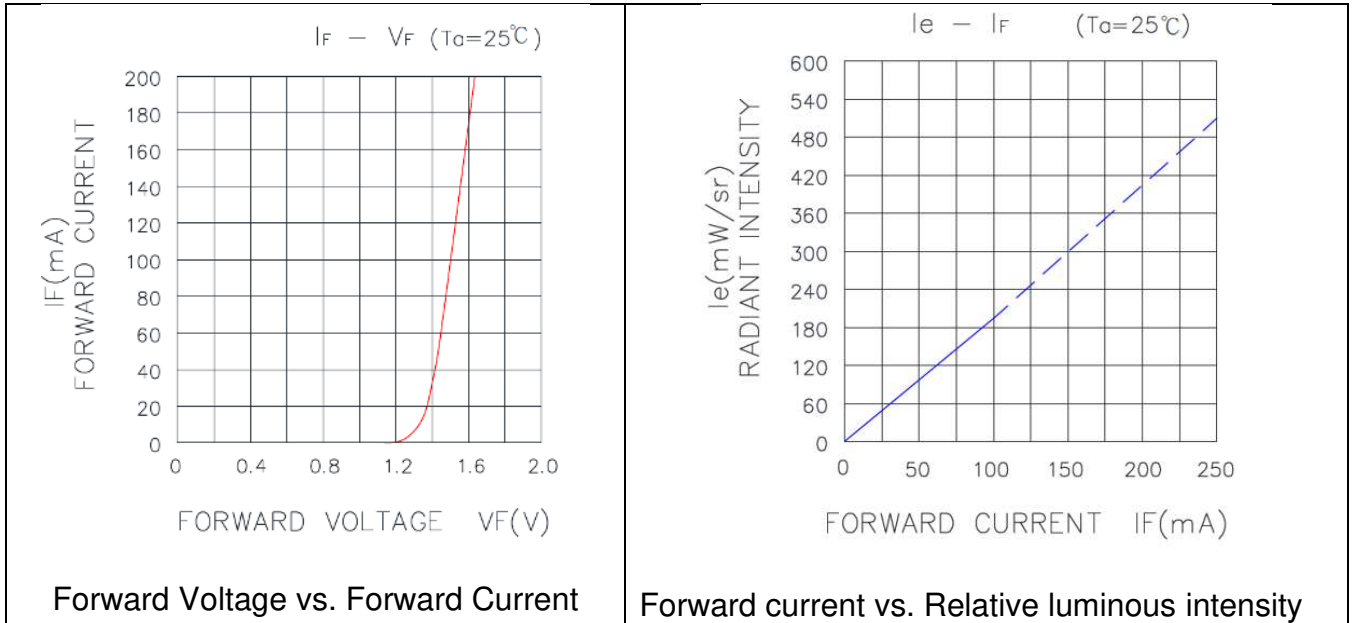
## Radiant Intensity Bin:

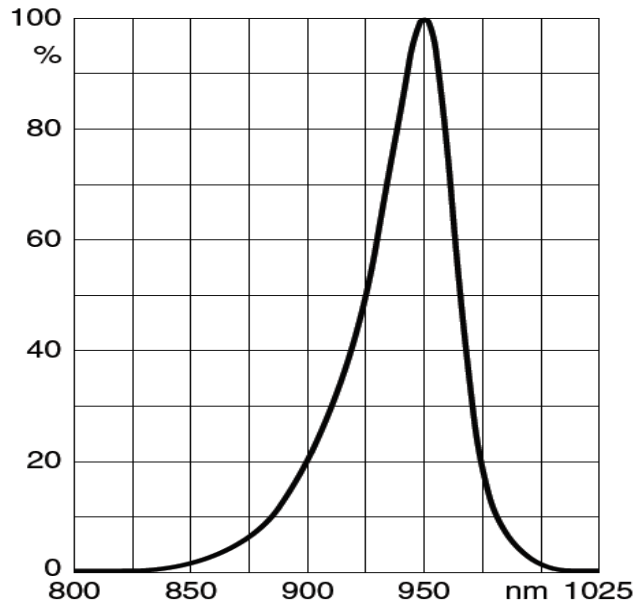
Po (mW/sr) rank @ 100mA			
Code name	Min.	Max.	Unit
P0010	10	20	mW
P0020	20	30	

luminous intensity tolerance is  $\pm 7\%$

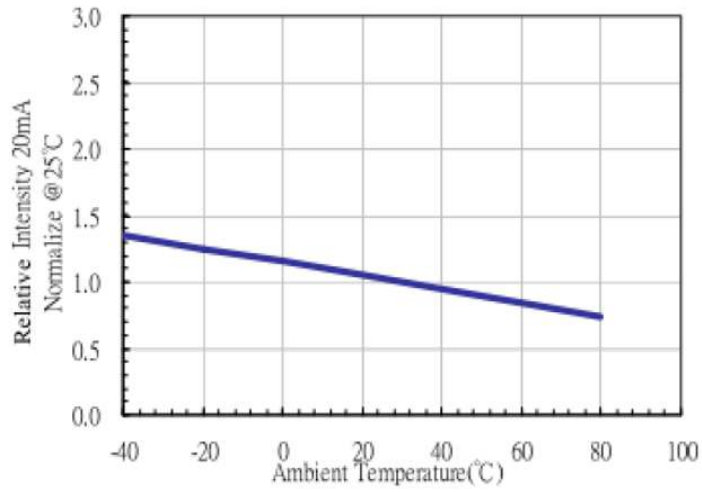


## Characteristic Curves





Spectrum Distribution



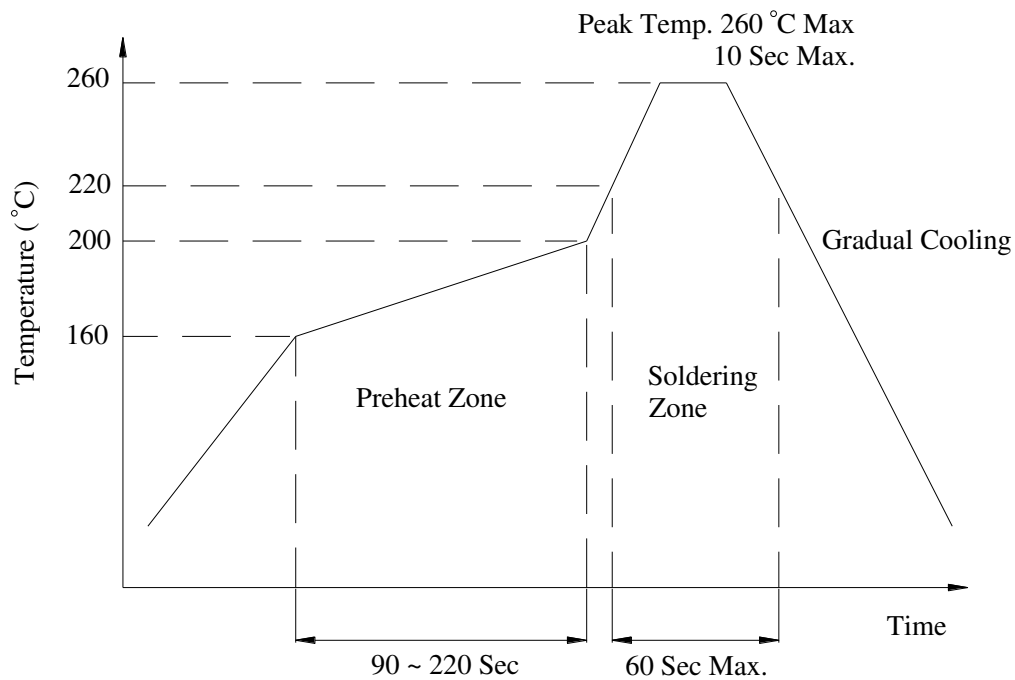
Relative Luminous Intensity vs Ambient Temperature



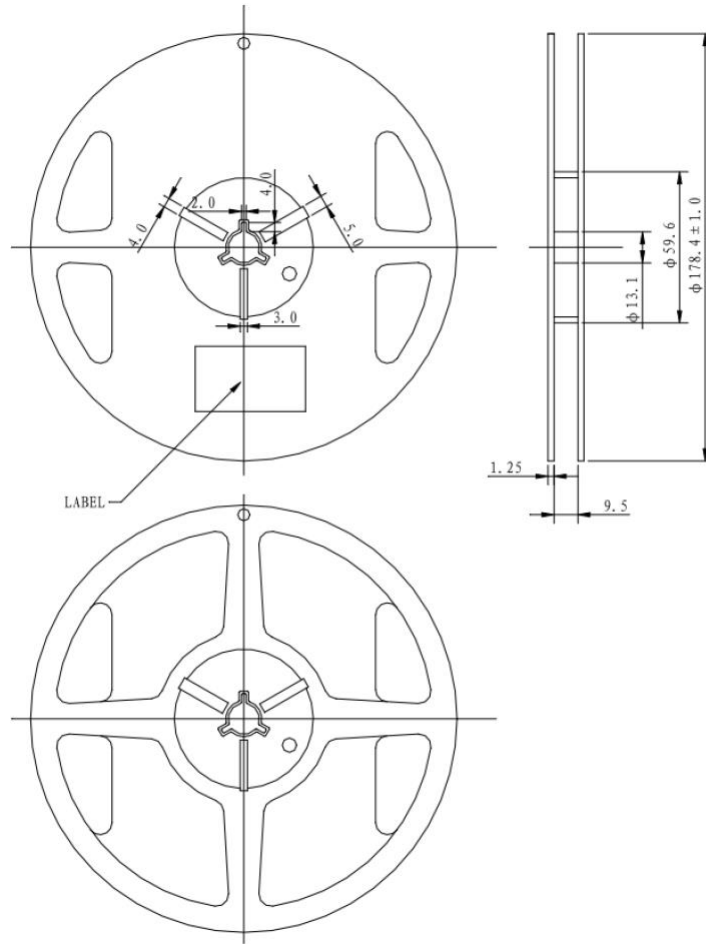
## Solder Profile:

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

- When soldering LEDs,
- Do not solder/reflow the same LED over two times.
- Recommend soldering conditions:
  - Hand soldering: 300 °C max , 3 sec. max.
  - Reflow soldering: Pre-heat 150 max , 180 sec. max. °C
  - Peak 260 ma °C x , 5 sec. max.
- Reflow temperature profile as below: (lead-free solder)



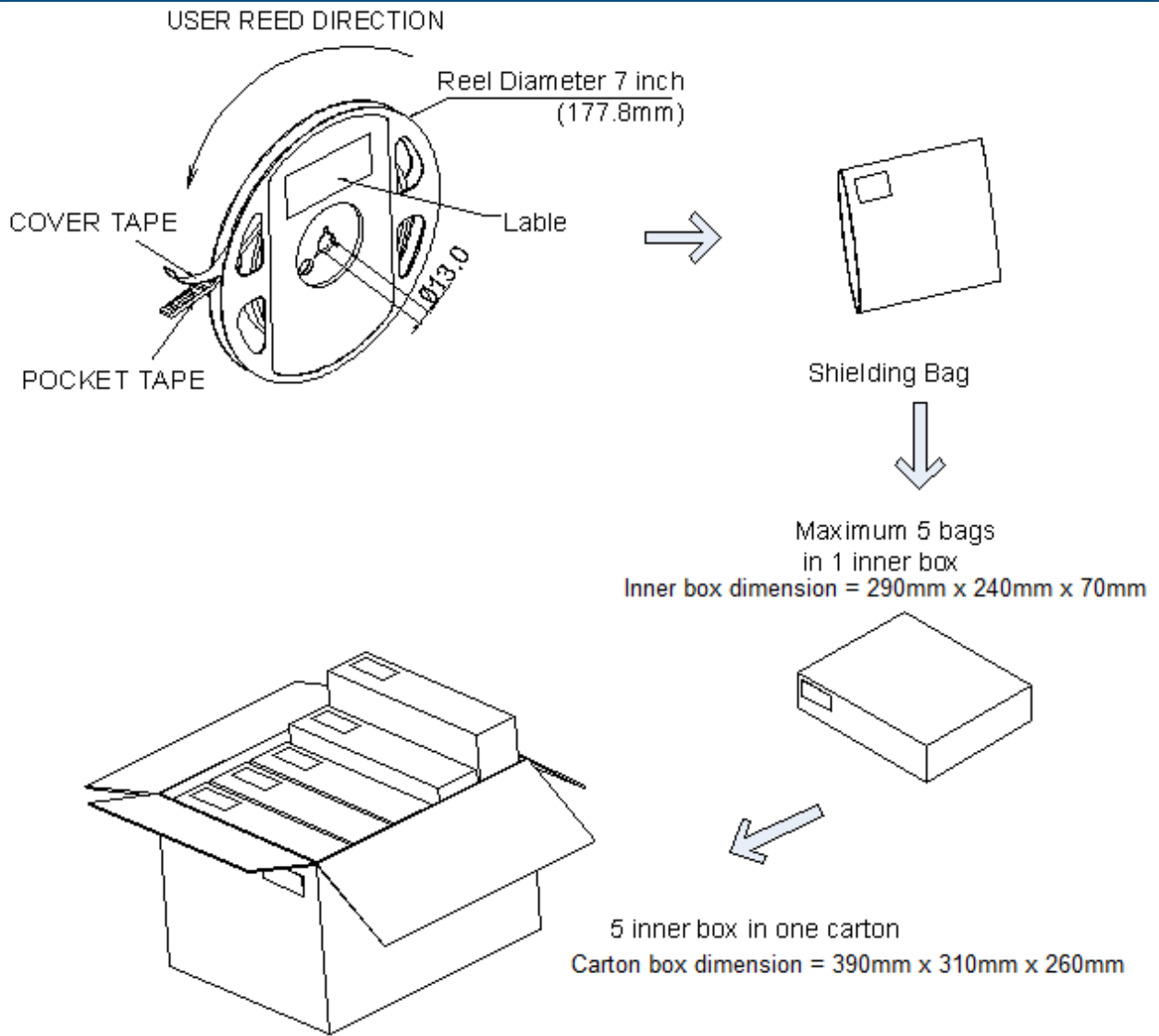
## Taping & Packing:



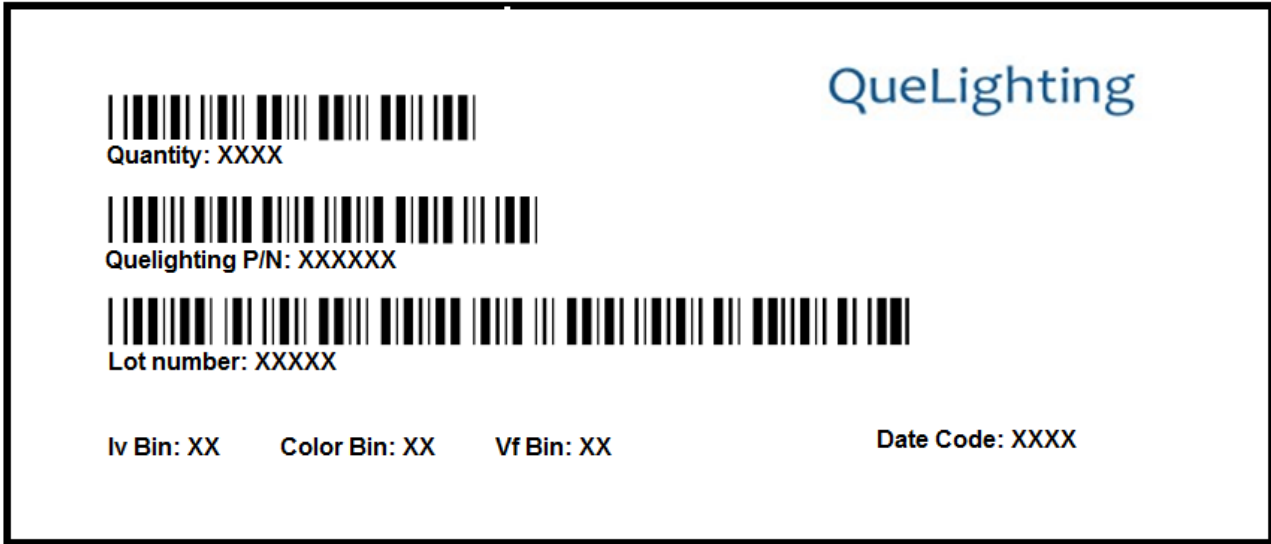
Unit : mm







## Labeling



## Ordering Information:

Part #	Multiple Quantities	Quantity per Reel
QLSP05DYAM		1000pcs, 2000 pcs



## Revision History:

Revision Date:	Changes:	Version #:
01-18-2020	Initial release	1.0
08-05-2020	Updated the electrode polarity	1.1

