



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

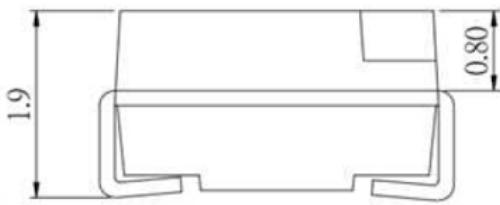
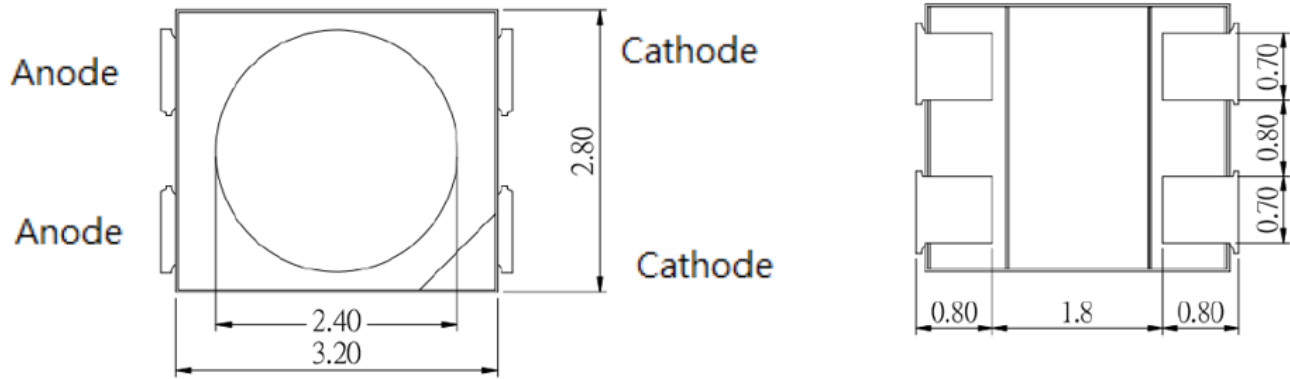
Application:

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

Compliance and Certification:

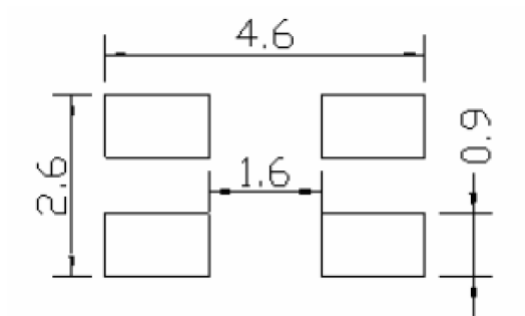


Mechanical Property: (Dimension)



Units: mm

Recommended Solder footprint:



Units: mm



Electrical / Optical Characteristic

(T=25°C)

Product	Color	I _F (mA)	V _F (V)		λ _p (nm)			I _v (mW)	
			Typ.	max	Min.	Typ.	Max.	min	typ.
QLIR05DYAM	Infrared	100	1.5	2.0		940		10	16

- (1) The Forward Voltage tolerance is ±0.1V
- (2) The λD tolerance is ±1nm
- (3) The I_v tolerance is ± 7%

Absolute Maximum Rating

(T=25°C)

Part #	P _d (mW)	I _F (mA)	I _{FP} (mA)*	V _R (V)	T _{OP} (°C)	T _{ST} (°C)	T _{SOL} (°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_F) Bin:

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

The forward voltage tolerance is ± 0.1V

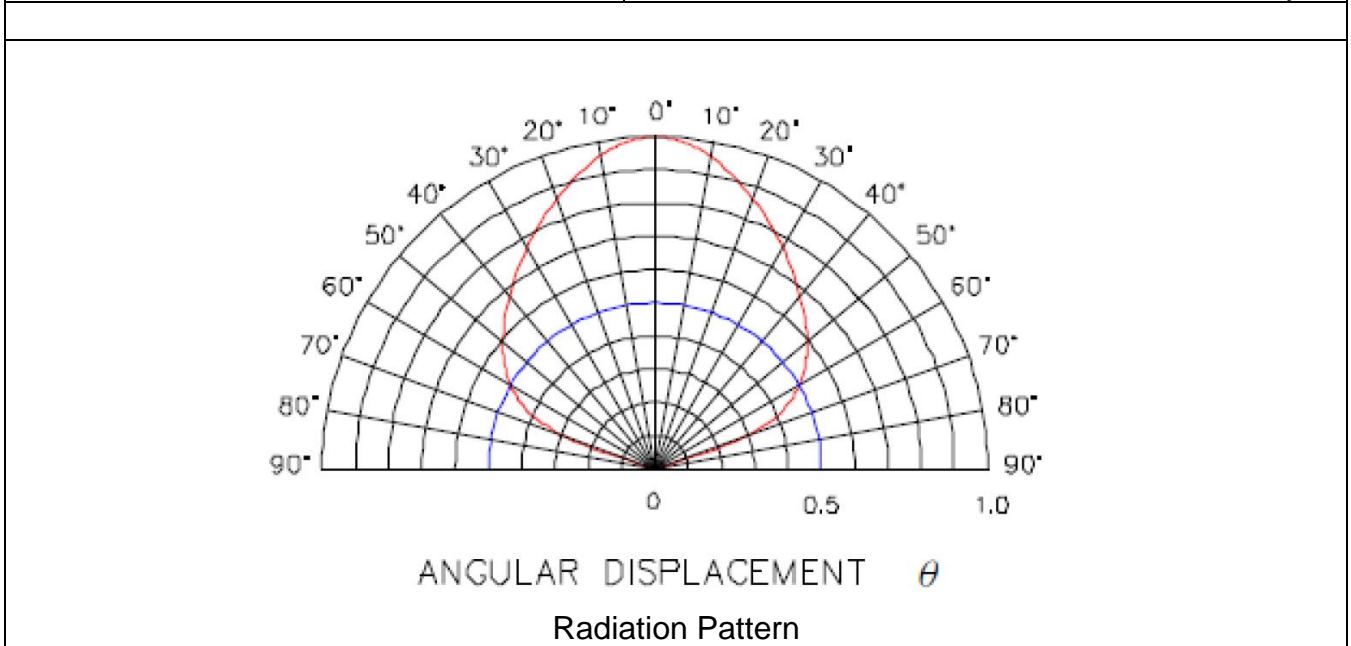
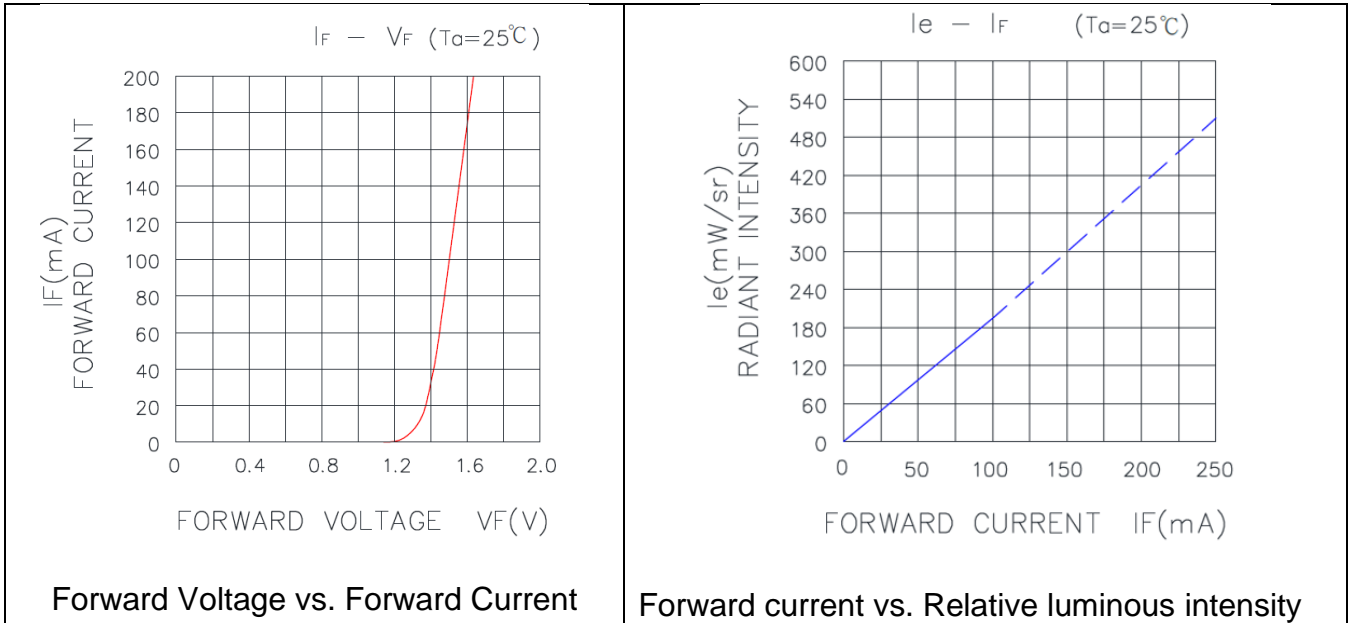
Radiant Intensity Bin:

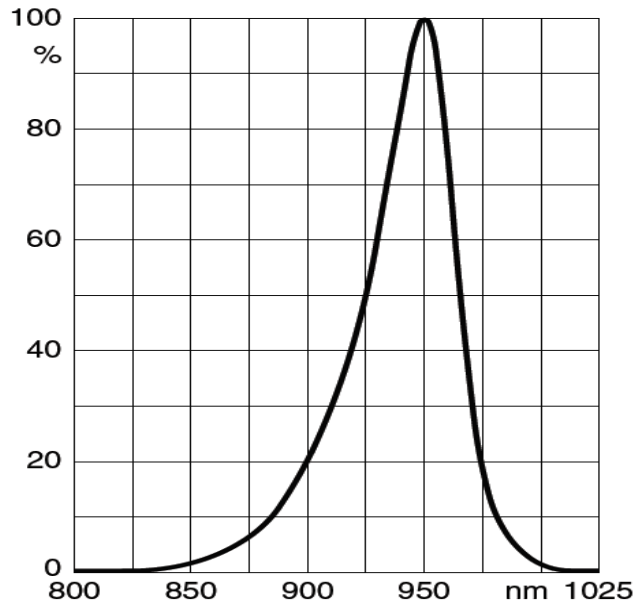
Po (mW/sr) rank @ 100mA			
Code name	Min.	Max.	Unit
P0010	10	20	mW
P0020	20	30	

luminous intensity tolerance is ± 7%

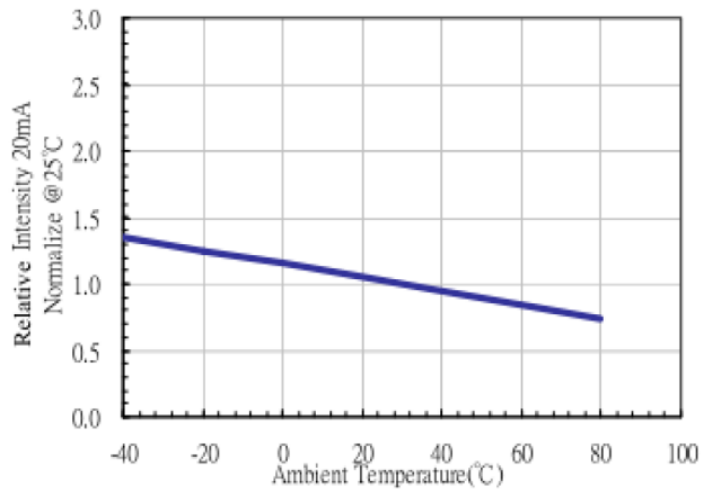


Characteristic Curves





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):

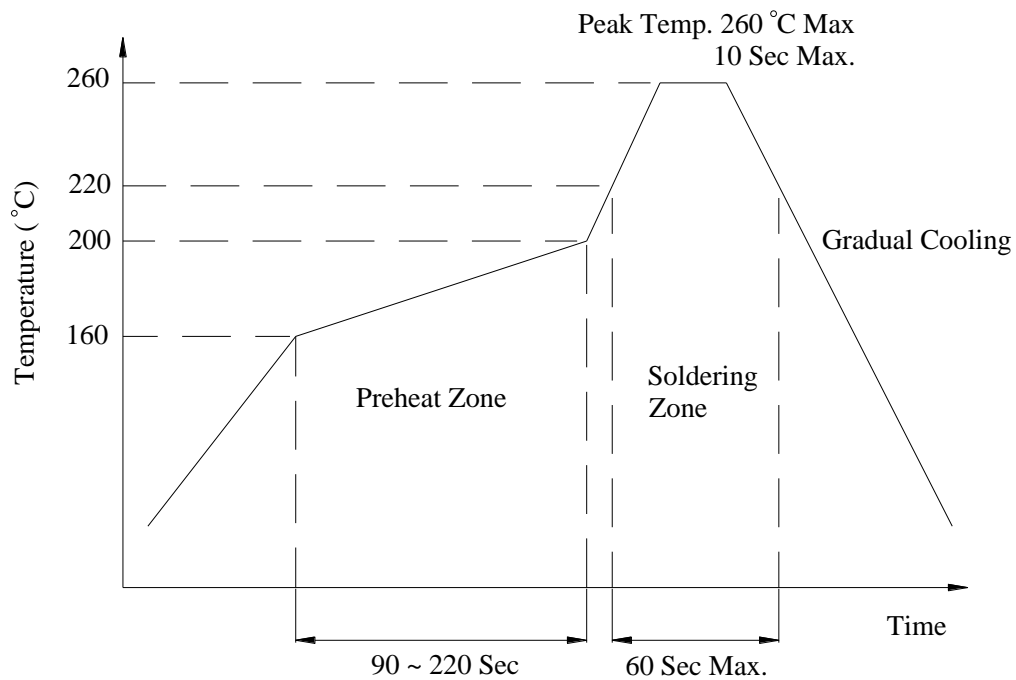
- When soldering LEDs,
- Do not solder/reflow the same LED over two times.
- Recommend soldering conditions:

Hand soldering: 300 °C max , 3 sec. max.

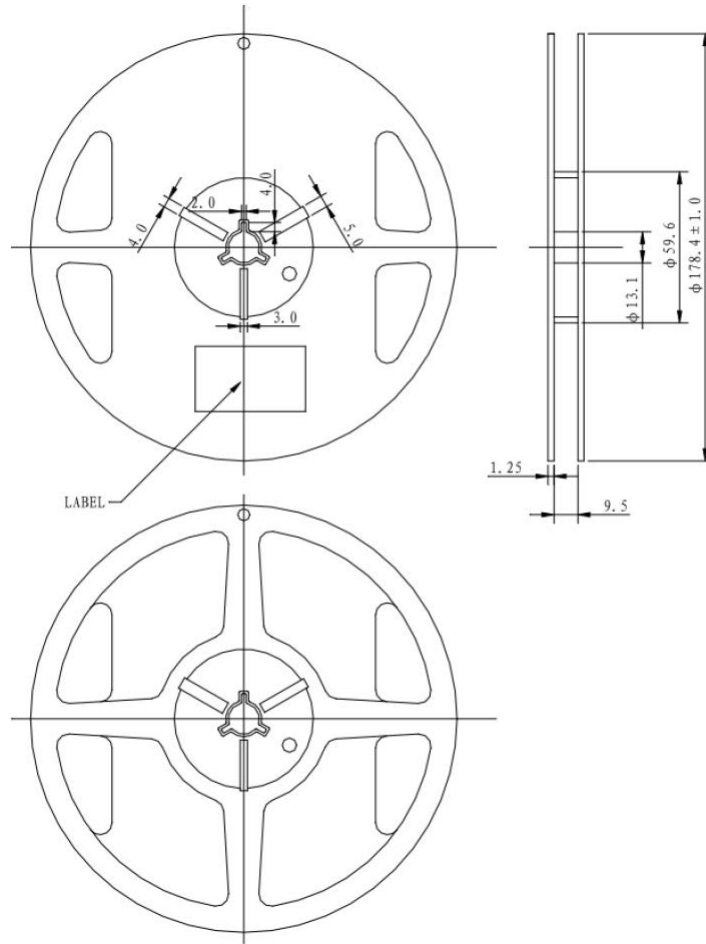
Reflow soldering: Pre-heat 150 max , 180 sec. max. °C

Peak 260 ma °C x , 5 sec. max.

- Reflow temperature profile as below: (lead-free solder)

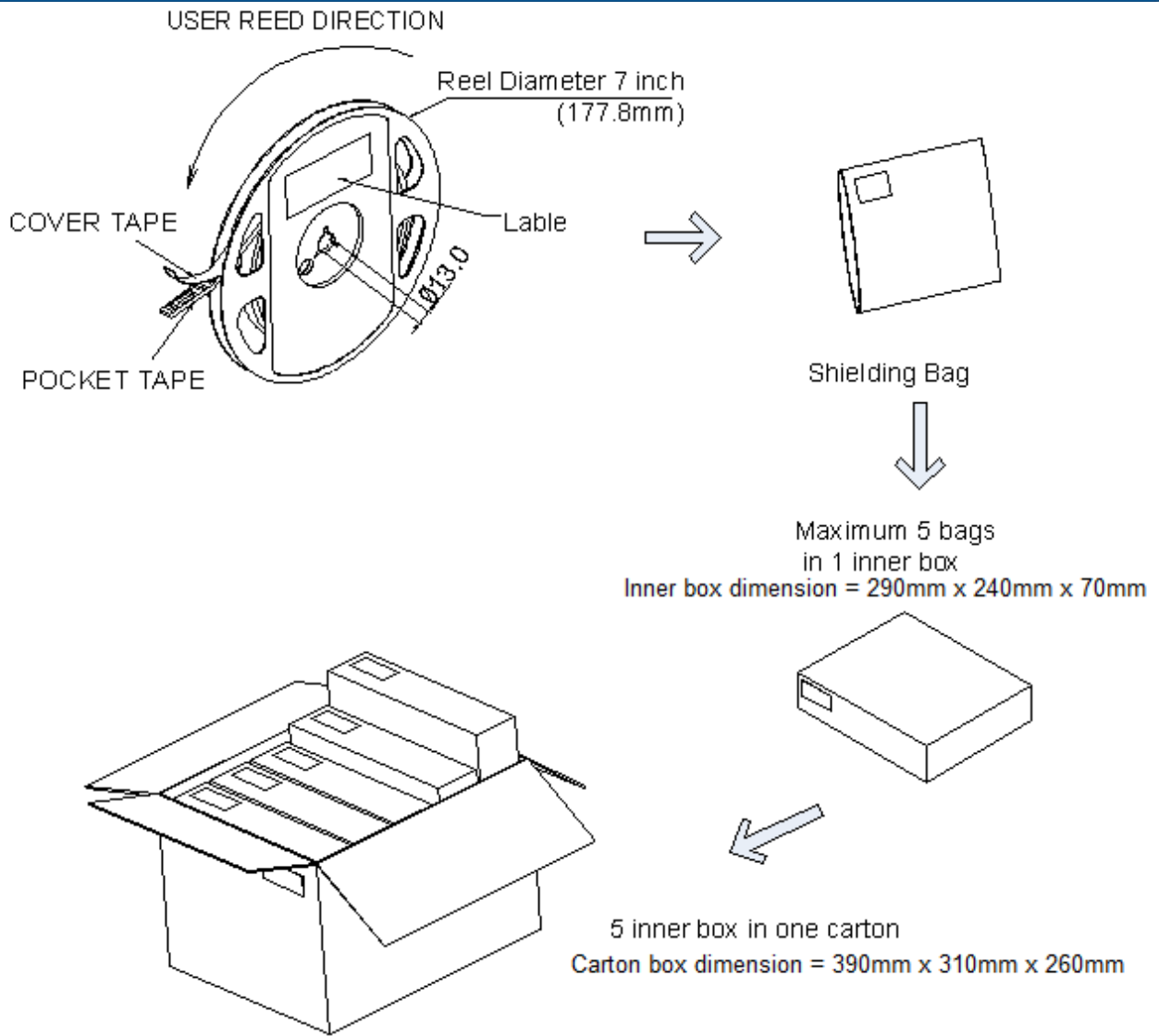


Taping & Packing:

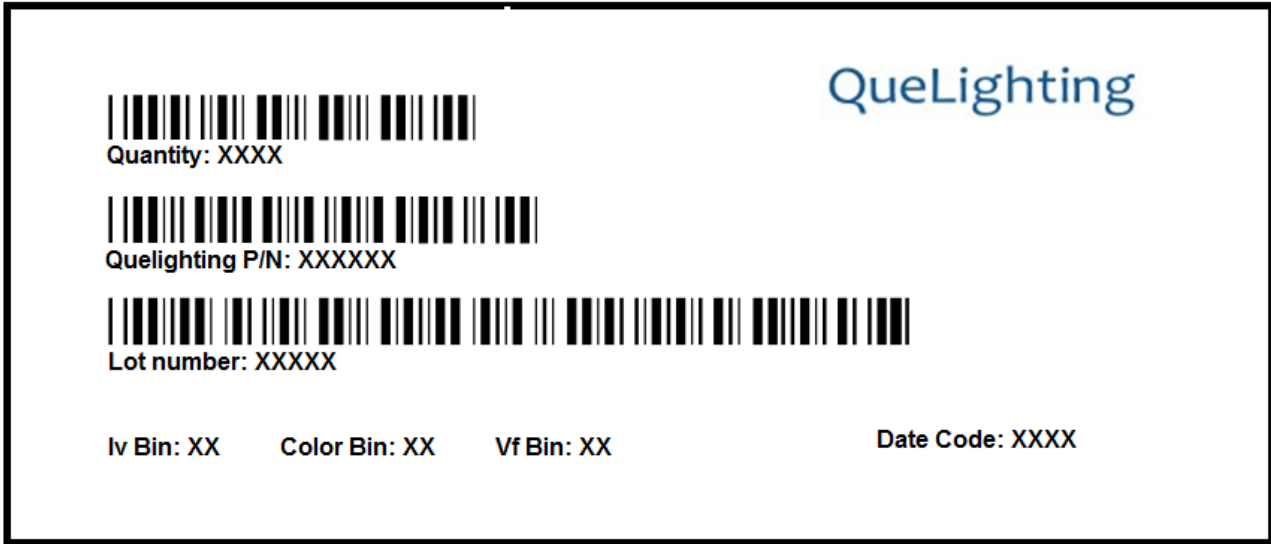


Unit : mm





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

