

PRODUCT SPECIFICATION

Part Number
PL5050A6-WCR50

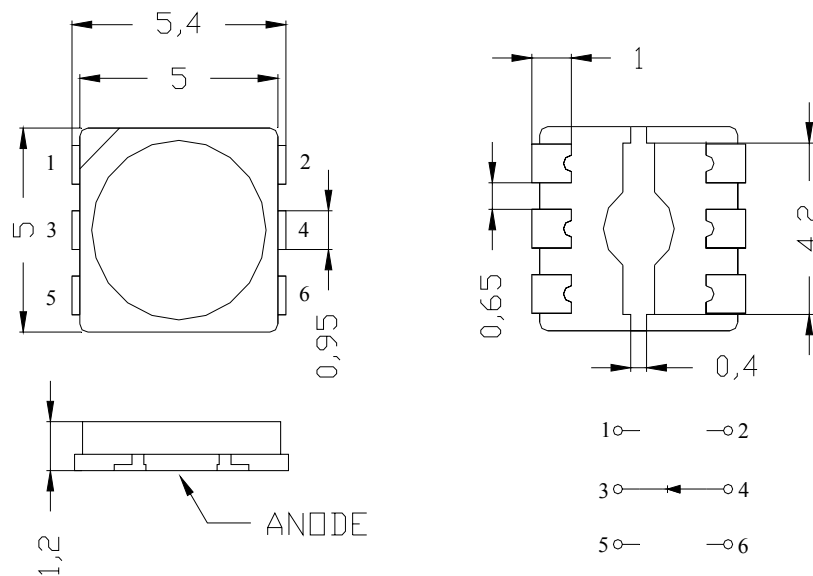
Details

- PLCC-6 Surface Mount LED
- Dimensions 5.4 x 5.0 x 1.2mm
- Package: 1,000 piece reels
- Emitting Color: Hyper Red

Features

- High luminous intensity
- 120° Viewing Angle
- RoHS Compliant

Mechanical Dimensions



Notes:

1. Specifications subject to change without notice
2. Tolerance of measurement of dimensions: $\pm 0.25\text{mm}$





Device Selection Guide

Model Number	Chip		Lens Color
PL5050A6-WCR50	Material	Emitting Color	Water Clear
	AlGaInP	Hyper Red	

Absolute Maximum Ratings at Ta=25 °C

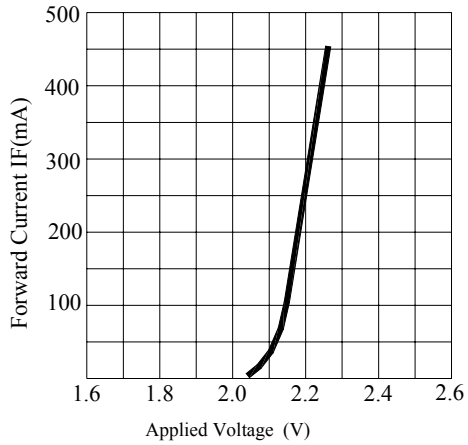
Parameter	Symbol	Rating	Unit
Power Dissipation	Pd	980	mW
DC Forward Current	IF	350	mA
Peak Current (1/10 Duty Cycle, 0.1ms Pulse Width)	IFP	400	mA
Reverse Voltage	VR	5	V
Operating Temperature	Topr	-40~+85	°C
Storage Temperature	Tstg	-40~+100	°C
Soldering Temperature	Tsol	Reflow Soldering: 260°C for 10 sec Hand Soldering: 350°C for 3 sec	

Electrical and Optical Characteristics at Ta=25 °C

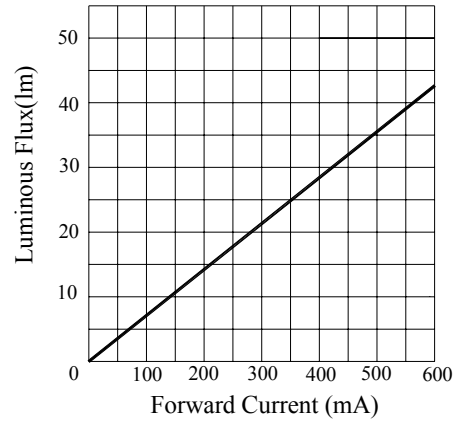
Hyper Red							
Parameter		Symbol	Min.	Typ.	Max.	Unit	Condition
Forward Voltage	Rank V1	VF	1.8	--	2.0	V	IF=350mA
	Rank V2		2.0	--	2.2		
	Rank V3		2.2	--	2.4		
	Rank V4		2.4	--	2.6		
	Rank V5		2.6	--	2.8		
Luminous Intensity	--	Iv	--	9.9	--	cd	
Luminous Flux	FULL	Φv	--	24	--	lm	
	Rank L1		10	--	30		
	Rank L2		30	--	50		
Peak Wavelength	--	λP	--	642	--	nm	
Dominant Wavelength	--	λD	618	--	621	nm	
			621	--	624		
			624	--	627		
			627	--	630		
			630	--	633		
Viewing Angle	--	2θ 1/2	--	120	--	deg	
Reverse Current	--	IR	--	--	50	μA	Vr=5V

Typical Electrical / Optical Characteristic Curves

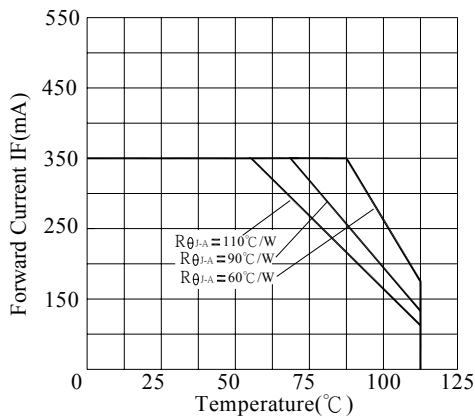
- $T_a = 25^\circ\text{C}$ Unless Otherwise Noted



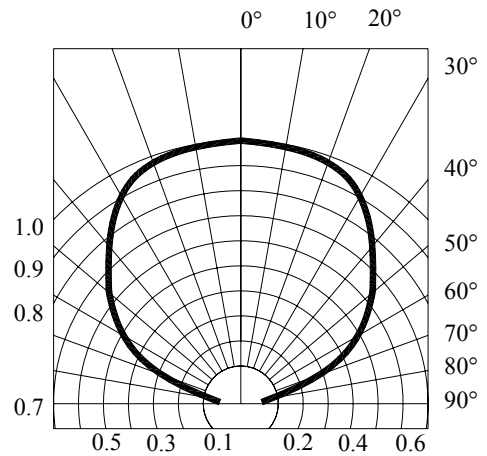
Forward Current VS. Forward Voltage



Forward Current VS. Luminous Intensity

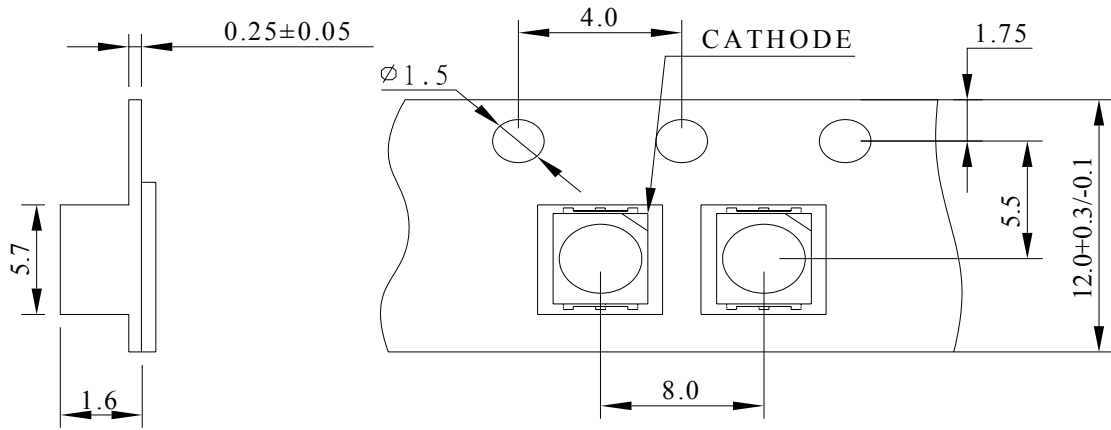


Ambient Temperature VS. Forward Current

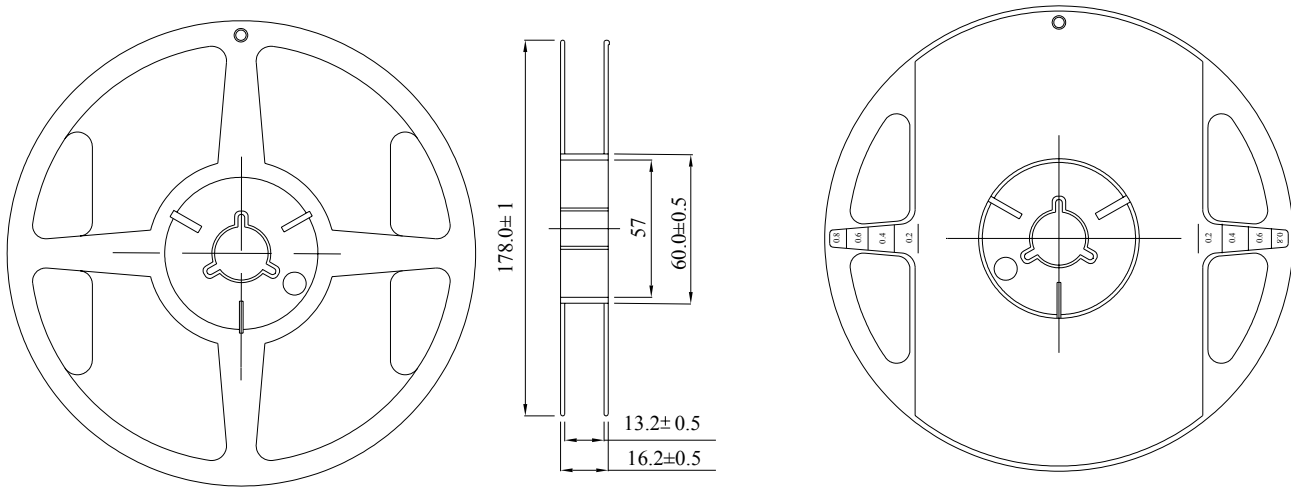


Radiation Diagram

Dimensions for Tape



Dimensions for Reel

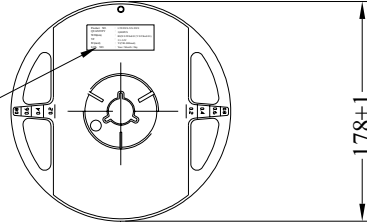


Packaging

REEL

QUANTITY: 1,000 PCS

P-TEC CORP.
 PART NO :PLXXXX-XX
 Q'TY : PCS
 LOT NO :XXXXXXXXXX
 DATE :
 BIN CODE:

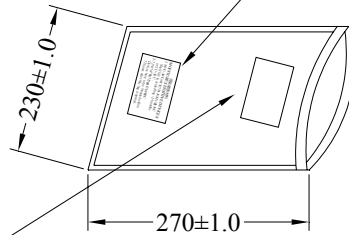


溼氣敏感材料
 MOISTURE SENSITIVE DEVICES
 1. 在5°C-30°C密封貯藏，1年有效。
 Shelf life in sealed bag : 12 months
 at 5°C-30°C .
 2. 開封後需在168小時內使用。
 Devices have to be mounted within
 168 hours after this bag is opened .

BAG

QUANTITY: 1,000 PCS

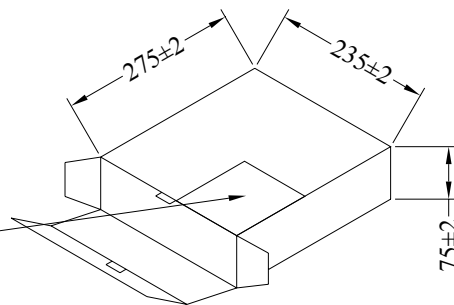
P-TEC CORP.
 PART NO :PLXXXX-XX
 Q'TY : PCS
 LOT NO :XXXXXXXXXX
 DATE :
 BIN CODE:



INSIDE BOX

QUANTITY: 4 BAGS
 TOTAL: 4,000 PCS

P-TEC CORP.
 PART NO :PLXXXX-XX
 Q'TY : PCS
 LOT NO :XXXXXXXXXX
 DATE :
 BIN CODE:



Precautions

Storage

Recommended storage environment

Temperature: 5° C ~ 30° C (41° F ~ 86° F)

Humidity: 60% RH Max.

Moisture measures: Please refer to Moisture-sensitive label on reels package bags.

If unused LEDs remain, they should be stored in moisture proof packages, such as sealed container with packages of moisture absorbent material (silica gel). It is also recommended to return the LEDs to the original moisture proof bag and to reseal the moisture proof bag again.

Fold the opened bag firmly and keep in dry environment.

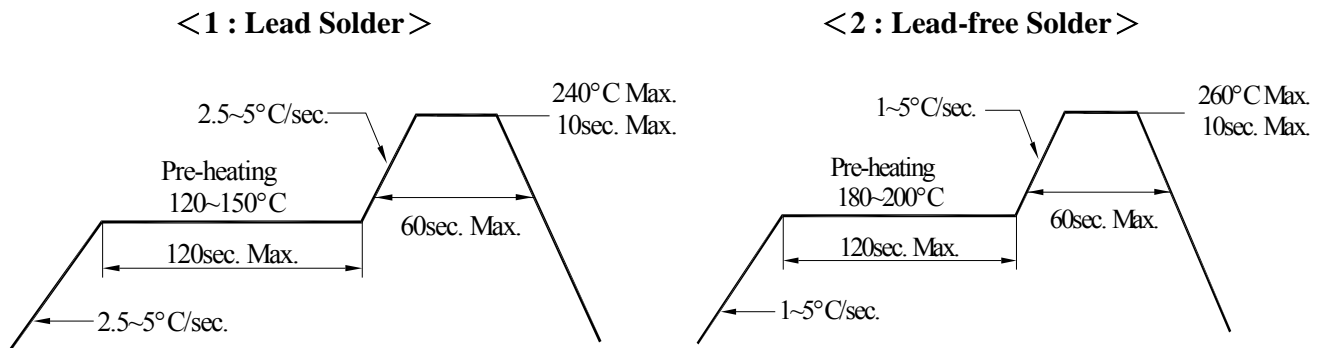
Soldering

	Reflow Soldering		Hand Soldering	
	Lead Solder	Lead – free Solder		
Pre-heat	120~150°C	180~200°C	Temperature	350°C Max.
Pre-heat time	120sec. Max.	120sec. Max.	Soldering time	3sec. Max. (one time only)
Peak temperature	240°C Max.	260°C Max.		
Soldering time	10sec. Max.	10sec. Max.		
Condition	refer to Temperature- profile 1	refer to Temperature- profile 2		

*After reflow soldering rapid cooling should be avoided.

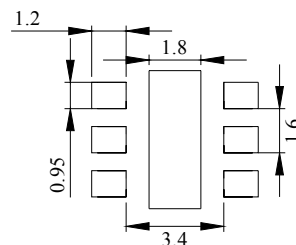
[Temperature-profile (Surface of circuit board)]

Use the conditions shown to the under figure.



[Recommended soldering pad design]

Use the following conditions shown in the figure.



Unit:mm



PL5050A6-WCR50 Customer Approval Signatures	Approved By	Signature	Notes/Remarks

Record Of Revisions			
Rev.	Comments	Page	Date
0	Released Spec	--	10/4/2018