

# **Product Guide**



**PY1114CK Super Thin Type SMT LED** 

#### Features

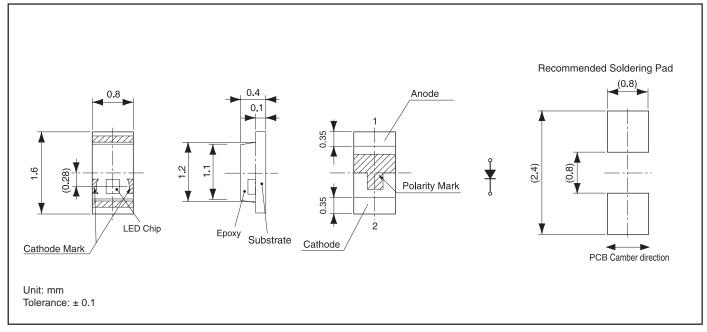
- Super thin type: height is only 0.4mm
- Excellent for applications where saving space is critical

#### Applications

- Cellular phone keyboard backlighting
- · Backlighting for switches

#### Outline Dimensions

#### **Preliminary**



# Electro-Optical Characteristics

(Ta=25°C)

| Part<br>No. | Material | Emitted<br>Color | Lens<br>Color |     | mino<br>ensit | y Iv | Peak<br>Ap<br>TYP. | Wave | Spectral Line Half Width AX TYP. | l le | Vo  | orwa<br>Itage<br> MAX. | <b>V</b> F | Reve<br>Curre |   | Viewing<br>Angle<br>(2 0 1/2) |
|-------------|----------|------------------|---------------|-----|---------------|------|--------------------|------|----------------------------------|------|-----|------------------------|------------|---------------|---|-------------------------------|
| PY1114CK    | GaP      | Yellow-Green     | Milky White   | 3.3 | 5.6           | 10   | 570                | 572  | 30                               | 10   | 2.1 | 2.8                    | 10         | 100           | 4 | 140°                          |
|             |          | Unit             |               | mo  | cd            | mΑ   |                    | nm   | )                                | mΑ   | \   | /                      | mΑ         | μΑ            | V | Deg.                          |

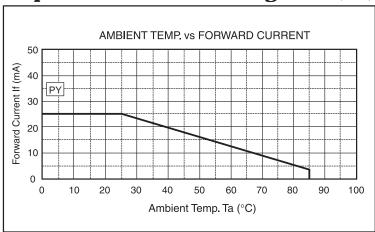
#### Absolute Maximum Ratings

(Ta=25°C)

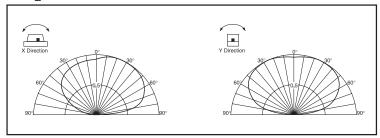
| Item                  |                | Yellow                 | Unit  |
|-----------------------|----------------|------------------------|-------|
| item                  | Symbol         | PY                     | Offic |
| Power Dissipation     | Pd             | 75                     | mW    |
| Forward Current       | l <sub>F</sub> | 25                     | mA    |
| Peak Forward Current  | Ігм            | 60                     | mA    |
| Reverse Voltage       | VR             | 4                      | V     |
| Operating Temperature | Topr           | -40 to +85             | °C    |
| Storage Temperature   | Tstg           | -40 to +100            | °C    |
| Derating*             | Δlf            | 0.36 (DC) 0.86 (Pulse) | mA/°C |

<sup>\*</sup> Ta=25°C, I<sub>FM</sub> applies for the pulse width ≤ 1msec. and duty cycle ≤1/20.

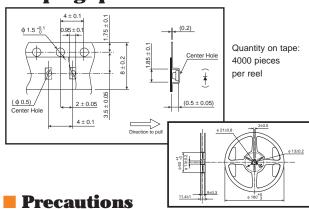
## Operation Current Derating Chart (DC)



## Spatial Distribution

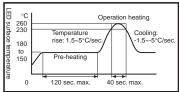


## Taping Specifications



Please follow these handling precautions to prevent damage to the chip and ensure its reliability.

- 1. Soldering conditions:
  - Soldering iron: Temperature at tip of iron: 350°C max. (30W max.) Soldering time: 3 sec. max.
  - <u>Dip soldering</u>: Preheating: 120°C max. (resin surface temp.) 60 sec. max. Bath temperature: 265°C max. Dipping Time: 5 sec. max.
  - Reflow Soldering:



#### 2. Cleaning:

- If cleaning is required, use the following solutions for less than 1 minute,
- Appropriate chemicals: Ethyl alcohol and isopropyl alcohol.
- Effect of ultrasonic cleaning on the LED resin body differs depending on such factors as the oscillator output, size of PCB and LED mounting method. The use of ultrasonic cleaning should be enforced at proper output after confirming there is no problem.

Product specifications subject to change without notice. PY1114CK-0102

