

Part Number: KP-2012P3C

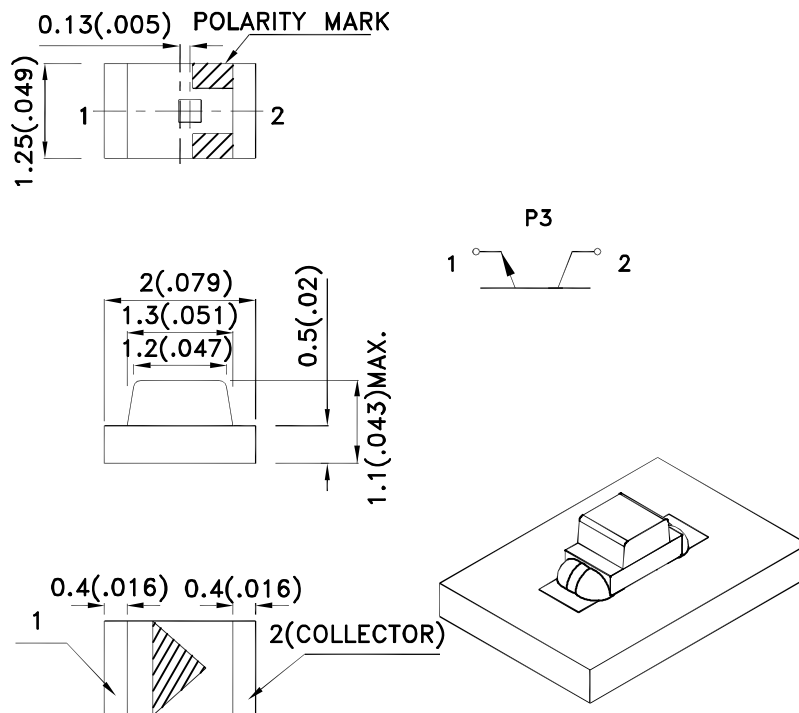
### Features

- 2.0mmx1.25mm SMT LED, 1.1mm thickness.
- Mechanically and spectrally matched to the infrared emitting LED lamp.
- Water clear lens.
- Package : 2000pcs / reel.
- Moisture sensitivity level : level 3.
- RoHS compliant.

### Description

Made with NPN silicon phototransistor chips.

### Package Dimensions



#### Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.1(0.004)$  unless otherwise noted.
3. The specifications, characteristics and technical data described in the datasheet are subject to change without prior notice.
4. The device has a single mounting surface. The device must be mounted according to the specifications.

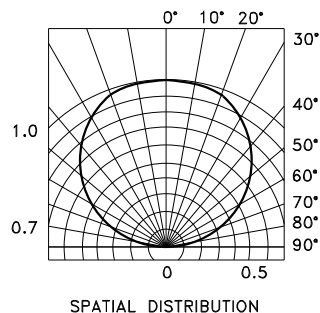


## Electrical / Optical Characteristics at TA=25°C

Symbol	Parameter	Min.	Typ.	Max.	Units	Test Conditions
V <sub>BR CEO</sub>	Collector-to-Emitter Breakdown Voltage	30			V	I <sub>C</sub> =100uA E <sub>e</sub> =0mW/c m <sup>2</sup>
V <sub>BR ECO</sub>	Emitter-to-Collector Breakdown Voltage	5			V	I <sub>E</sub> =100uA E <sub>e</sub> =0mW/c m <sup>2</sup>
V <sub>CE (SAT)</sub>	Collector-to-Emitter Saturation Voltage			0.8	V	I <sub>C</sub> =2mA E <sub>e</sub> =20mW/c m <sup>2</sup>
I <sub>CEO</sub>	Collector Dark Current			100	nA	V <sub>CE</sub> =10V E <sub>e</sub> =0mW/c m <sup>2</sup>
T <sub>R</sub>	Rise Time (10% to 90% )		15		us	V <sub>CE</sub> = 5V I <sub>C</sub> =1mA R <sub>L</sub> =1000Ω
T <sub>F</sub>	Fall Time (90% to 10% )		15		us	
I <sub>(ON)</sub>	On State Collector Current	0.2	0.4		mA	V <sub>CE</sub> = 5V E <sub>e</sub> =1mW/c m <sup>2</sup> λ=940nm
2θ1/2	Viewing Angle		120		deg	

## Absolute Maximum Ratings at TA=25°C

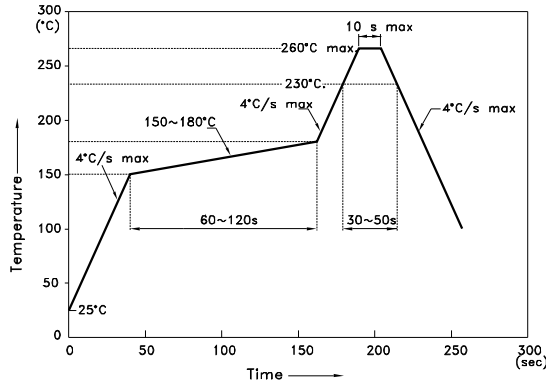
Parameter	Max.Ratings
Collector-to-Emitter Voltage	30V
Emitter-to-Collector Voltage	5V
Power Dissipation at (or below) 25°C Free Air Temperature	100mW
Operating Temperature	-40°C To +85°C
Storage Temperature	-40°C To +85°C



## KP-2012P3C

Reflow soldering is recommended and the soldering profile is shown below.  
Other soldering methods are not recommended as they might cause damage to the product.

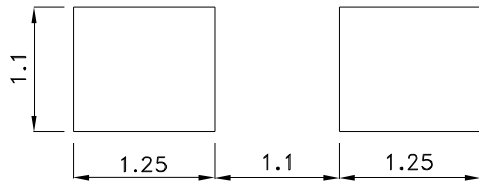
Reflow Soldering Profile For Lead-free SMT Process.



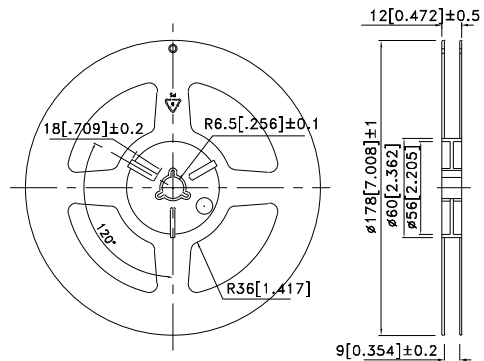
NOTES:

1. We recommend the reflow temperature 245°C(+/-5°C). The maximum soldering temperature should be limited to 260°C.
2. Don't cause stress to the epoxy resin while it is exposed to high temperature.
3. Number of reflow process shall be 2 times or less.

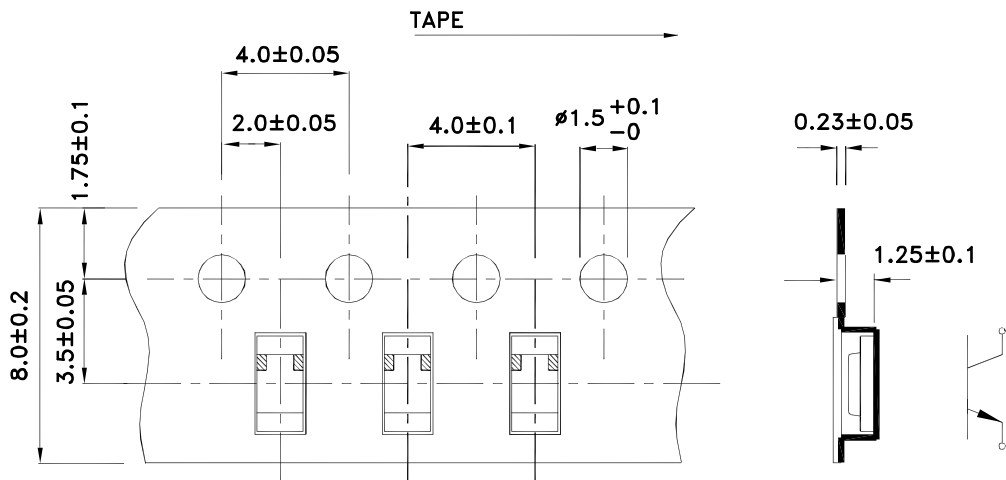
### Recommended Soldering Pattern (Units : mm; Tolerance: ± 0.1)



### Reel Dimension



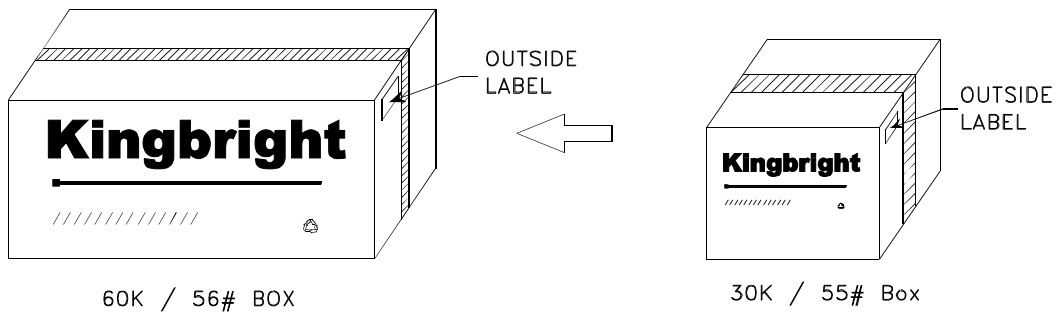
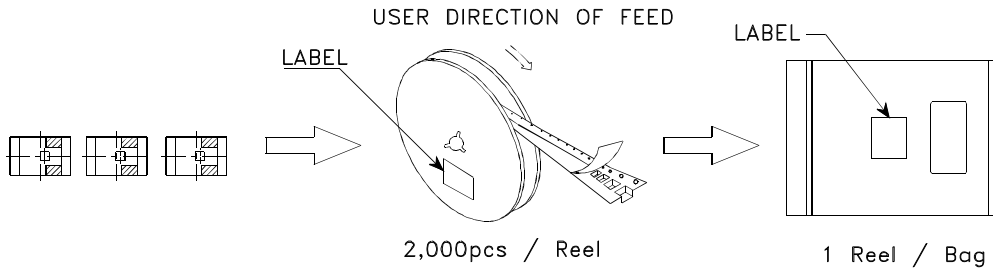
### Tape Specifications




# Kingbright

## PACKING & LABEL SPECIFICATIONS

## KP-2012P3C



<h1>Kingbright</h1>	
P/NO: KP-2012xxx	
QTY: 2,000 pcs	Q.C. <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">Q C XX XX XXXX PASSED</span>
S/N: XXXX	
CODE: XXX	
LOT NO:	
 XXXXXXXXXXXXXXXXXXXXXXXX	
RoHS Compliant	