



**EN:** This Datasheet is presented by the manufacturer.

Please visit our website for pricing and availability at [www.hestore.hu](http://www.hestore.hu).

Part Number: KP-2012P3BT

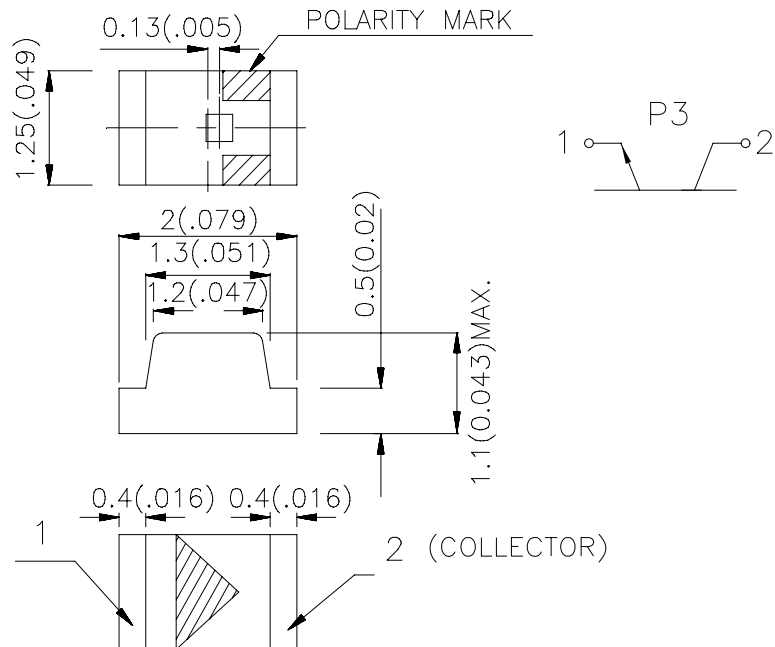
### Features

- MECHANICALLY AND SPECTRALLY MATCHED TO THE KP-2012 SERIES INFRARED EMITTING LED LAMP.
- BLUE TRANSPARENT LENS.
- PACKAGE : 2000PCS / REEL.
- MOISTURE SENSITIVITY LEVEL : LEVEL 3.
- RoHS COMPLIANT.

### Description

Made with NPN silicon phototransistor chips.

### Package Dimensions



#### Notes:

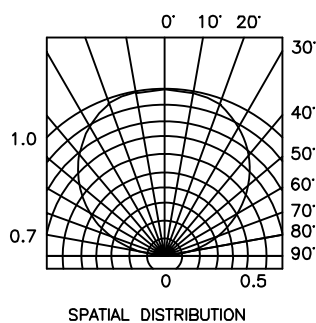
1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.1(0.004)$  unless otherwise noted.
3. Specifications are subject to change without notice.

## Electrical / Optical Characteristics at T<sub>A</sub>=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<br>E <sub>e</sub> =0mW/cm <sup>2</sup>           |
| V <sub>BR ECO</sub>  | Emitter-to-Collector Breakdown Voltage  | 5    | -    | -    | V     | I <sub>E</sub> =100uA<br>E <sub>e</sub> =0mW/cm <sup>2</sup>           |
| V <sub>CE(SAT)</sub> | Collector-to-Emitter Saturation Voltage | -    | -    | 0.8  | V     | I <sub>C</sub> =2mA<br>E <sub>e</sub> =20mW/cm <sup>2</sup>            |
| I <sub>CEO</sub>     | Collector Dark Current                  | -    | -    | 100  | nA    | V <sub>CE</sub> =10V<br>E <sub>e</sub> =0mW/cm <sup>2</sup>            |
| T <sub>R</sub>       | Rise Time (10% to 90% )                 | -    | 3    | -    | us    | V <sub>CE</sub> = 5V<br>I <sub>C</sub> =1mA<br>R <sub>L</sub> =1000Ω   |
| T <sub>F</sub>       | Fall Time (90% to 10% )                 | -    | 3    | -    | us    |                                                                        |
| I <sub>(ON)</sub>    | On State Collector Current              | 0.1  | 1.0  | -    | mA    | V <sub>CE</sub> = 5V<br>E <sub>e</sub> =1mW/cm <sup>2</sup><br>λ=940nm |
| 2θ1/2                | Viewing Angle                           | -    | 120  | -    | deg   | -                                                                      |

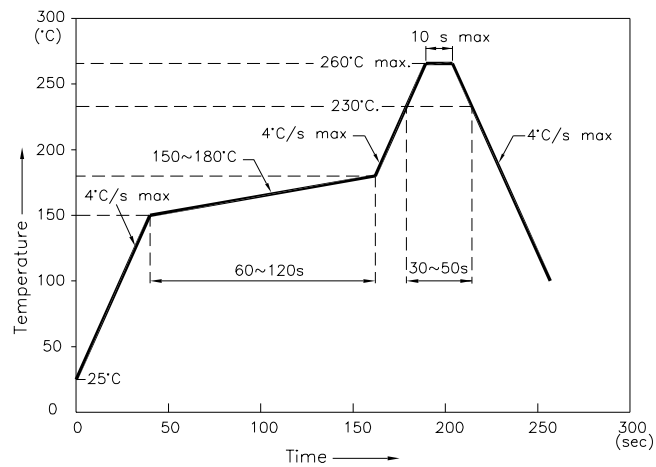
## Absolute Maximum Ratings at T<sub>A</sub>=25°C

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



## KP-2012P3BT

Reflow Soldering Profile For Lead-free SMT Process.

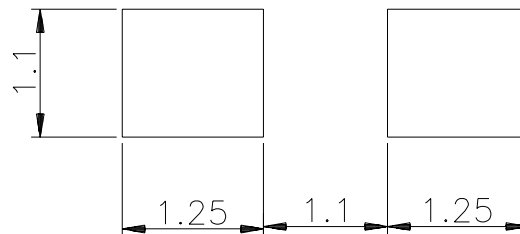


### NOTES:

1. We recommend the reflow temperature  $245^{\circ}\text{C} (+/-5^{\circ}\text{C})$ . The maximum soldering temperature should be limited to  $260^{\circ}\text{C}$ .
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:  $\pm 0.1$ )



## Tape Specifications

(Units : mm)

