

KP-2012P3C

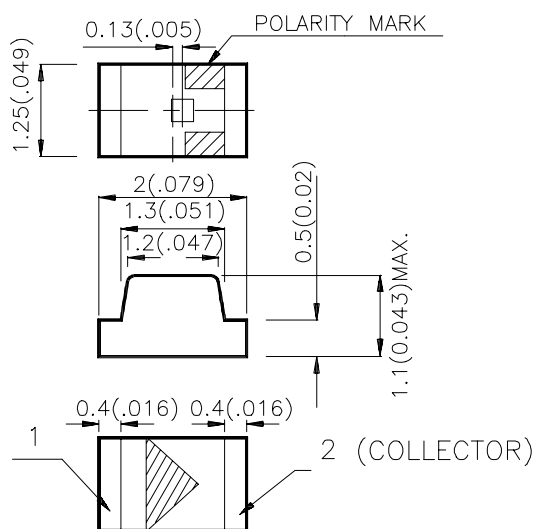
### Features

- MECHANICALLY AND SPECTRALLY MATCHED TO THE KP-2012 SERIES INFRARED EMITTING LED LAMP.
- WATER CLEAR LENS.
- PACKAGE : 2000PCS / REEL.

### Description

Made with NPN silicon phototransistor chips.

### Package Dimensions



#### Notes:

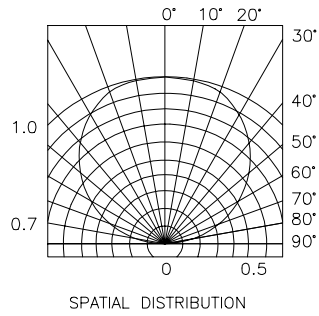
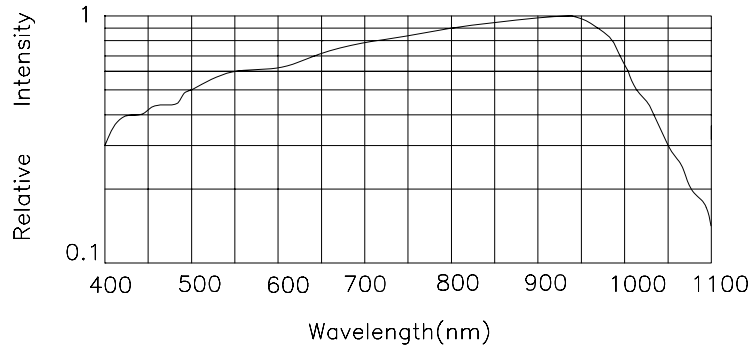
1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.1(0.004)$ " unless otherwise noted.
3. Lead spacing is measured where the lead emerge package.
4. Specifications are subject to change without notice.

## Absolute Maximum Rating at $T_A=25^{\circ}\text{C}$

Parameter	Max. Ratings
Collector-to-Emitter Breakdown Voltage	30V
Emitter-to-Collector Breakdown Voltage	5V
Power Dissipation at (or below) $25^{\circ}\text{C}$ Free Air Temperature	100mW
Operating Temperature Range	$-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$
Storage Temperature Range	$-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$
Viewing Angle (2 $\theta$ 1/2 )	120°

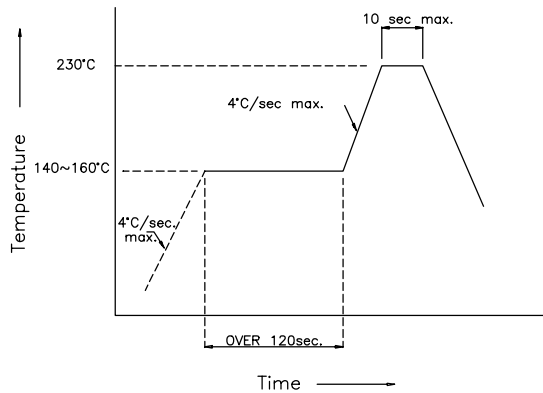
## Electrical And Radiant Characteristics at $T_A=25^{\circ}\text{C}$

Symbol	Parameter	Min.	Typ.	Max.	Unit	Test Condition
$V_{BR_{CEO}}$	Collector-to-Emitter Breakdown Voltage	30	-	-	V	$I_C=100\mu\text{A}$ $E_e=0\text{mW}/\text{cm}^2$
$V_{BR_{ECO}}$	Emitter-to-Collector Breakdown Voltage	5	-	-	V	$I_E=100\mu\text{A}$ $E_e=0\text{mW}/\text{cm}^2$
$V_{CE(SAT)}$	Collector-to-Emitter Saturation Voltage	-	-	0.8	V	$I_C=2\text{mA}$ $E_e=20\text{mW}/\text{cm}^2$
$I_{CEO}$	Collector Dark Current	-	-	100	nA	$V_{CE}=10\text{V}$ $E_e=0\text{mW}/\text{cm}^2$
$T_R$	Rise Time (10% to 90%)	-	3	-	us	$V_{CE}=5\text{V}$ $I_C=1\text{mA}$ $R_L=1000\Omega$
$T_F$	Fall Time (90% to 10%)	-	3	-	us	
$I_{(ON)}$	On State Collector Current	0.1	0.3	-	mA	$V_{CE}=5\text{V}$ $E_e=1\text{mW}/\text{cm}^2$ $\lambda=940\text{nm}$

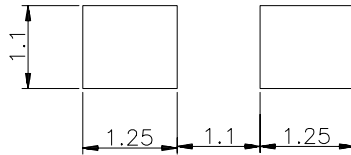


**KP-2012P3C**  
**SMT Reflow Soldering Instructions**

Number of reflow process shall be less than 2 times and cooling process to normal temperature is required between first and second soldering process.



## Recommended Soldering Pattern (Units : mm)



## Tape Specifications (Units : mm)

