

Part Number: APA3010P3C

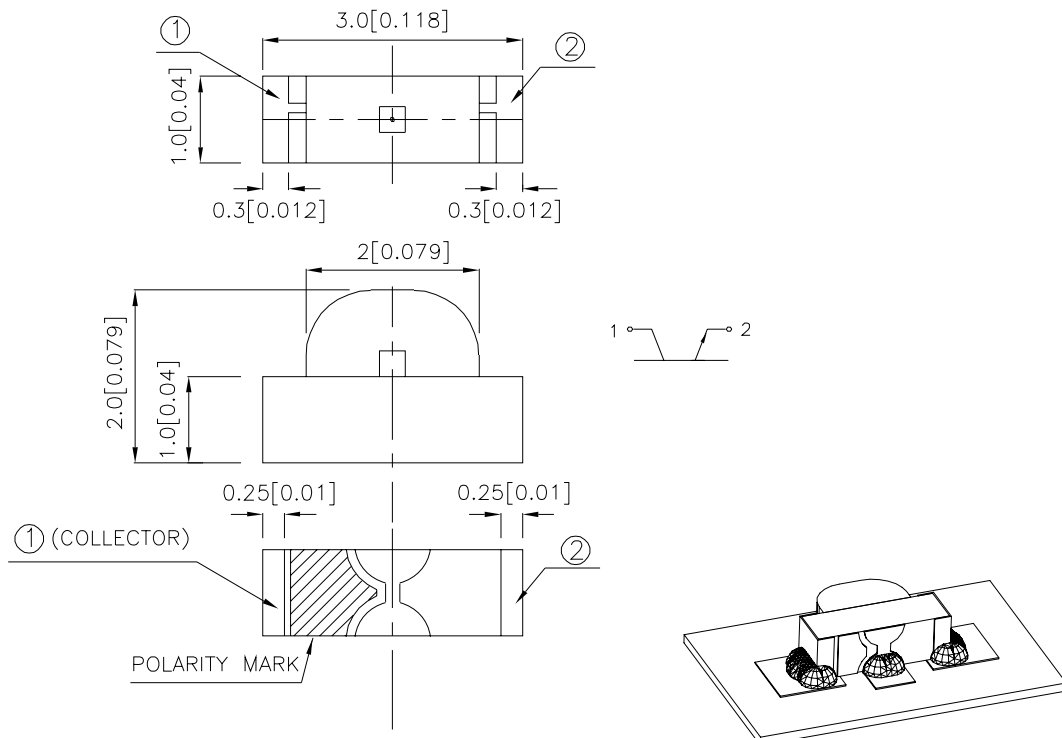
### Features

- MECHANICALLY AND SPECTRALLY MATCHED TO THE APA3010 SERIES 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:

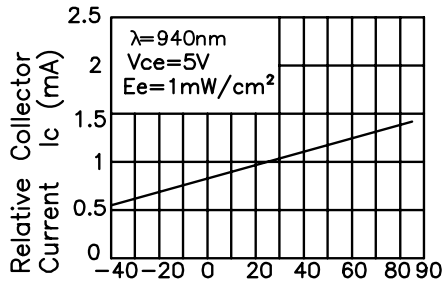
1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.15(0.006")$  unless otherwise noted.
3. Specifications are subject to change without notice.
4. The device has a single mounting surface. The device must be mounted according to the specifications.

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

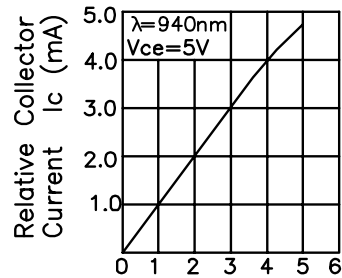
Symbol	Parameter	Min.	Typ.	Max.	Units	Test Conditions
VBR CEO	Collector-to-Emitter Breakdown Voltage	30	-	-	V	Ic=100uA Ee=0mW/cm <sup>2</sup>
VBR ECO	Emitter-to-Collector Breakdown Voltage	5	-	-	V	Ie=100uA Ee=0mW/cm <sup>2</sup>
VCE (SAT)	Collector-to-Emitter Saturation Voltage	-	-	0.8	V	Ic=2mA Ee=20mW/cm <sup>2</sup>
I CEO	Collector Dark Current	-	-	100	nA	VCE=10V Ee=0mW/cm <sup>2</sup>
TR	Rise Time (10% to 90% )	-	15	-	us	VCE = 5V Ic=1mA RL=1000Ω
TF	Fall Time (90% to 10% )	-	15	-	us	
I (ON)	On State Collector Current	0.1	0.3	-	mA	VCE = 5V, Ee=1mW/cm <sup>2</sup> , λ=940nm
2θ1/2	Viewing Angle	-	120	-	deg	-

## Absolute Maximum Ratings at TA=25°C

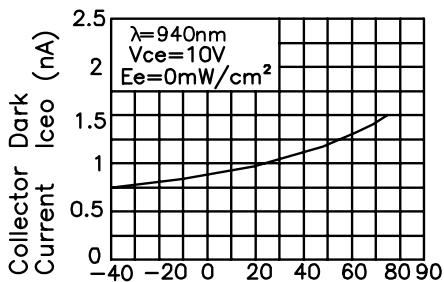
Parameter	Max.Ratings
Collector-to-Emitter Breakdown Voltage	30V
Emitter-to-Collector Breakdown Voltage	5V
Power Dissipation at (or below) 25°C Free Air Temperature	100mW
Operating Temperature Range	-40°C ~ +85°C
Storage Temperature Range	-40°C ~ +85°C



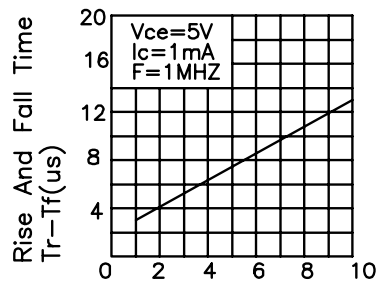
Ambient Temperature  $T_A$  (°C)  
RELATIVE COLLECTOR CURRENT VS.  
AMBIENT TEMPERATURE



$E_e$ —irradiance—mW/cm<sup>2</sup>  
IRRADIANCE VS. RELATIVE  
COLLECTOR CURRENT



Ambient Temperature  $T_A$  (°C)  
COLLECTOR DARK CURRENT VS.  
AMBIENT TEMPERATURE



Load Resistance  $R_L$ (k $\Omega$ )  
RISE AND FALL TIME VS.  
LOAD RESISTANCE

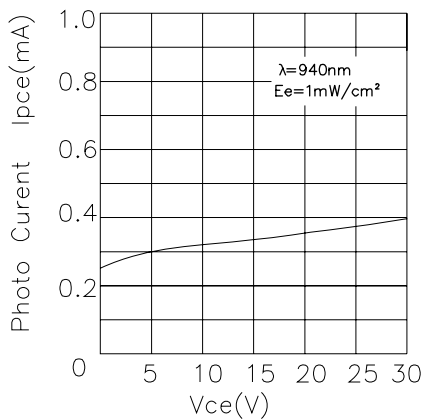
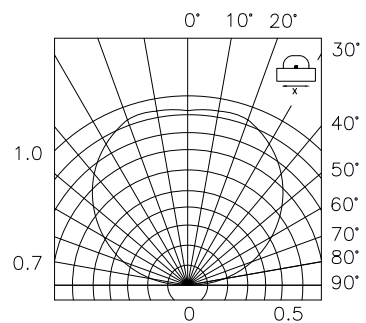
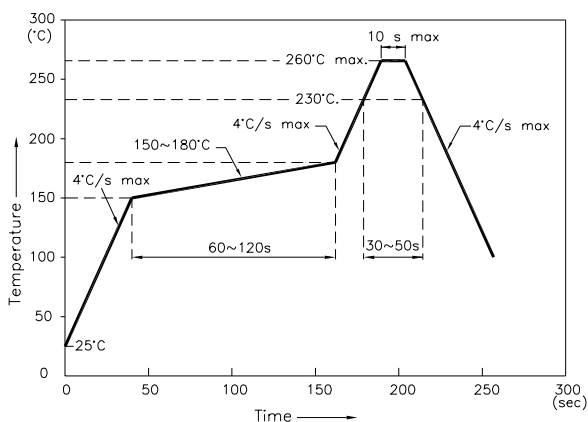


PHOTO CURRENT VS.  
COLLECTOR-TO-EMITTER VOLTAGE



## APA3010P3C

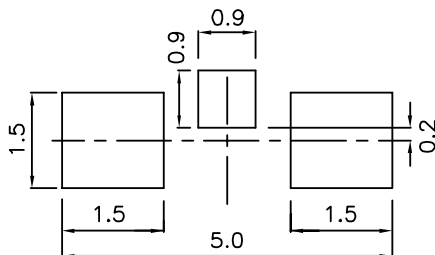
Reflow Soldering Profile For Lead-free SMT Process.



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)

