

## 3.2x1.6mm SMD CHIP LED LAMP

High Efficiency Red Part Number: APTD3216EC

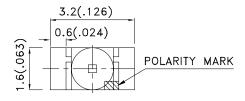
### **Features**

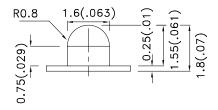
- 3.2mmX1.6mm SMT LED, 1.8mm THICKNESS.
- LOW POWER CONSUMPTION.
- WIDE VIEWING ANGLE.
- IDEAL FOR BACKLIGHT AND INDICATOR.
- VARIOUS COLORS AND LENS TYPES AVAILABLE.
- PACKAGE: 2000PCS / REEL .
- MOISTURE SENSITIVITY LEVEL: LEVEL 3.
- RoHS COMPLIANT.

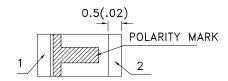
## Description

The High Efficiency Red source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Orange Light Emitting Diode.

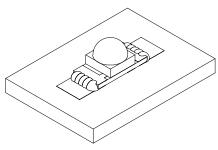
## **Package Dimensions**











- 1. All dimensions are in millimeters (inches).
- 2. Tolerance is  $\pm 0.2 (0.008")$  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.





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## **Selection Guide**

Part No.	Dice	Dice Lens Type lv (mcd) [2] @ 20mA		,	Viewing Angle [1]
		2.	Min.	Тур.	201/2
APTD3216EC	High Efficiency Red (GaAsP/GaP)	WATER CLEAR	10	50	40°

- 1. θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value. 2. Luminous intensity/ luminous Flux: +/-15%.

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

Symbol	Parameter	Device	Тур.	Max.	Units	Test Conditions	
λpeak	Peak Wavelength	High Efficiency Red	627		nm	IF=20mA	
λD [1]	Dominant Wavelength	High Efficiency Red	625		nm	IF=20mA	
Δλ1/2	Spectral Line Half-width	High Efficiency Red	45		nm	IF=20mA	
С	Capacitance	High Efficiency Red	15		pF	V <sub>F</sub> =0V;f=1MHz	
VF [2]	Forward Voltage	High Efficiency Red	2	2.5	V	IF=20mA	
lR	Reverse Current	High Efficiency Red		10	uA	V <sub>R</sub> =5V	

- 1.Wavelength: +/-1nm. 2. Forward Voltage: +/-0.1V.

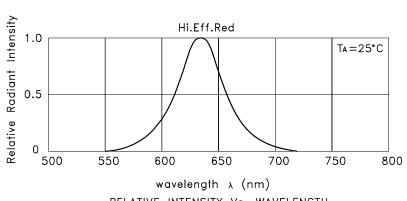
### Absolute Maximum Ratings at TA=25°C

Parameter	High Efficiency Red	Units	
Power dissipation	75	mW	
DC Forward Current	30	mA	
Peak Forward Current [1]	160	mA	
Reverse Voltage	5	V	
Operating Temperature	-40°C To +85°C		
Storage Temperature	-40°C To +85°C		

### Note:

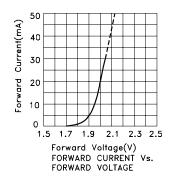
1. 1/10 Duty Cycle, 0.1ms Pulse Width.

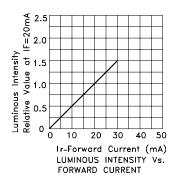
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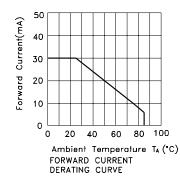


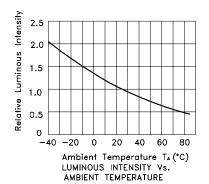
RELATIVE INTENSITY Vs. WAVELENGTH

### **High Efficiency Red** APTD3216EC









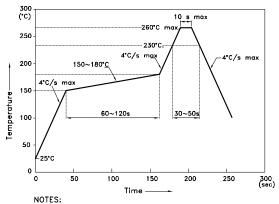
30° 40° 1.0 50° 60° 70° 80° 0.7

SPATIAL DISTRIBUTION

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## APTD3216EC

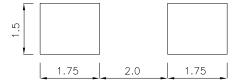
Reflow Soldering Profile For Lead-free SMT Process.



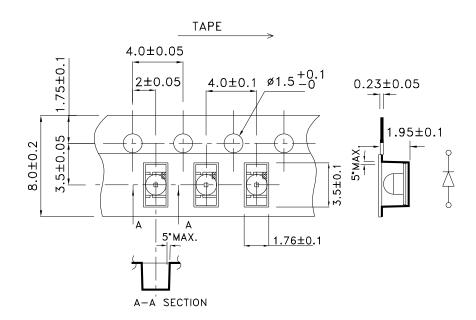
- NOTES:

  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.

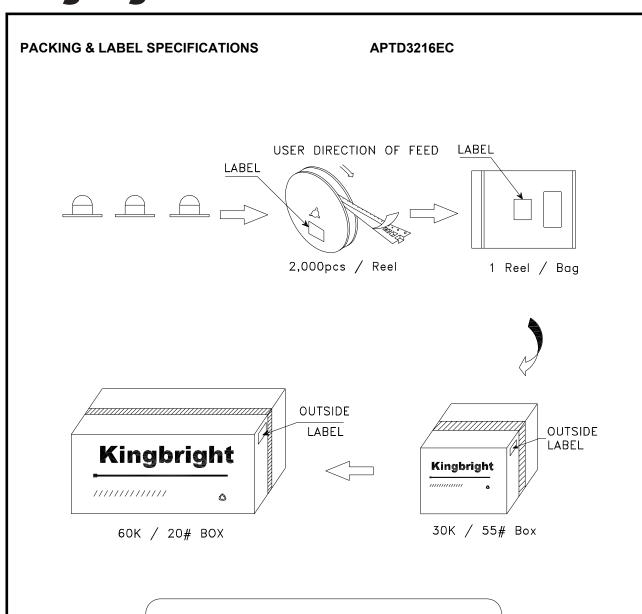
**Recommended Soldering Pattern** (Units: mm; Tolerance: ± 0.1)



## **Tape Specifications** (Units: mm)



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