

## 3.5 x2.8mm SMD CHIP LED LAMP

Part Number: APED3528EC High Efficiency Red

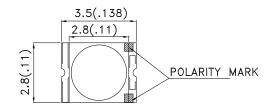
## **Features**

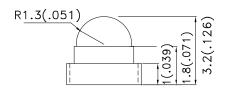
- Single color.
- Suitable for all SMT assembly and solder process.
- Ideal for backlighting.
- Available on tape and reel.
- Package: 500pcs / reel.
- Moisture sensitivity level : level 3.
- RoHS compliant.

## Description

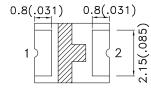
The High Efficiency Red source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Orange Light Emitting Diode.

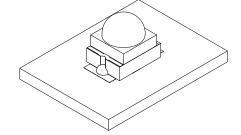
# **Package Dimensions**











- 1. All dimensions are in millimeters (inches).
- 2. Tolerance is  $\pm 0.2(0.008")$  unless otherwise noted.
- The specifications, characteristics and technical data described in the datasheet are subject to change without prior notice.
   The device has a single mounting surface. The device must be mounted according to the specifications.

SPEC NO: DSAD1054 **REV NO: V.3** DATE: AUG/01/2011 PAGE: 1 OF 5 ERP: 1203001126 APPROVED: WYNEC **CHECKED: Allen Liu** DRAWN: Y.H.Wu

# **Selection Guide**

Part No.	Dice	Lens Type	lv (mcd) [2] Viewing @ 20mA Angle [1]	- 3	
		21	Min.	Тур.	201/2
APED3528EC	High Efficiency Red (GaAsP/GaP)	Water Clear	20	50	40°

- Notes: 1.  $\theta$ 1/2 is the angle from optical centerline where the luminous intensity is 1/2 of the optical peak 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=120mA
λD [1]	Dominant Wavelength	High Efficiency Red	625		nm	IF=120mA
Δλ1/2	Spectral Line Half-width	High Efficiency Red	45		nm	IF=120mA
С	Capacitance	High Efficiency Red	15		pF	VF=0V;f=1MHz
VF [2]	Forward Voltage	High Efficiency Red	2	2.5	V	IF=120mA
lr	Reverse Current	High Efficiency Red		10	uA	V <sub>R</sub> =5V

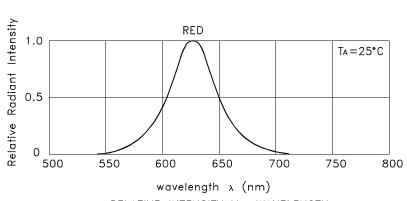
- Notes: 1.Wavelength: +/-1nm. 2. Forward Voltage: +/-0.1V.

# 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		

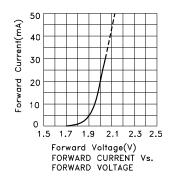
Note: 1. 1/10 Duty Cycle, 0.1ms Pulse Width.

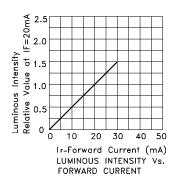
SPEC NO: DSAD1054 **REV NO: V.3** DATE: AUG/01/2011 PAGE: 2 OF 5 APPROVED: WYNEC **CHECKED: Allen Liu** DRAWN: Y.H.Wu ERP: 1203001126

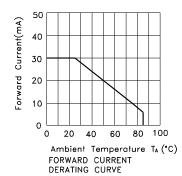


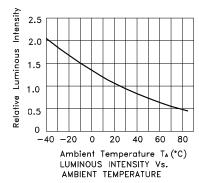
RELATIVE INTENSITY Vs. WAVELENGTH

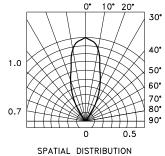
# High Efficiency Red APED3528EC











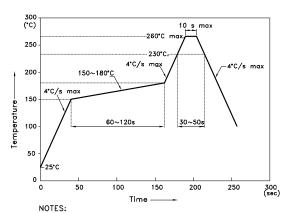
 SPEC NO: DSAD1054
 REV NO: V.3
 DATE: AUG/01/2011
 PAGE: 3 OF 5

 APPROVED: WYNEC
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## APED3528EC

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.



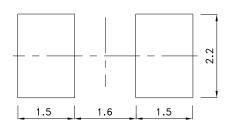
- NOTES:

  1.We recommend the reflow temperature 245°C(+/-5°C). The maximum soldering temperature should be limited to 260°C.

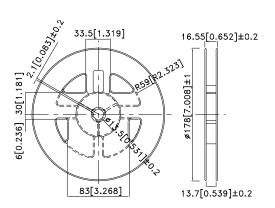
  2.Don't cause stress to the epoxy resin while it is exposed to high temperature.

  3.Number of reflow process shall be 2 times or less.

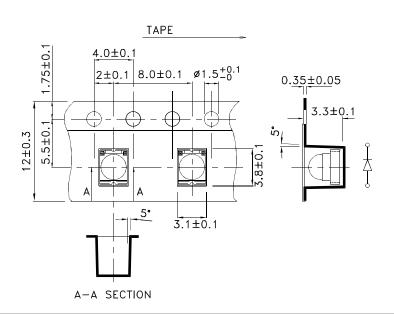
# **Recommended Soldering Pattern** (Units: mm; Tolerance: ± 0.1)



## **Reel Dimension**



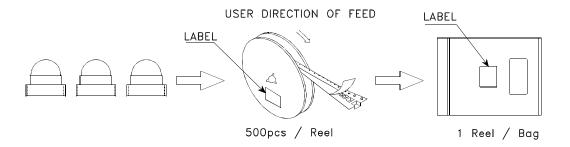
# **Tape Dimensions** (Units: mm)

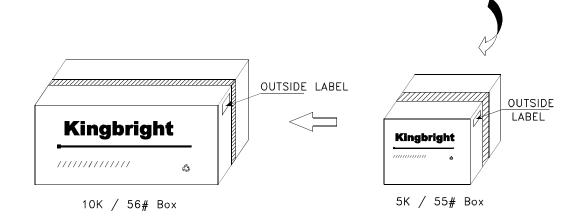


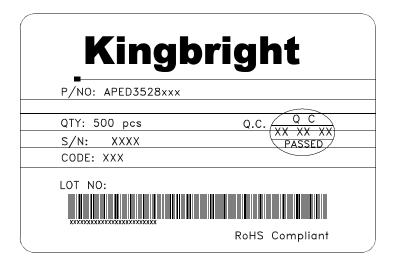
SPEC NO: DSAD1054 **REV NO: V.3** DATE: AUG/01/2011 PAGE: 4 OF 5 **APPROVED: WYNEC CHECKED: Allen Liu** DRAWN: Y.H.Wu ERP: 1203001126

**PACKING & LABEL SPECIFICATIONS** 

## APED3528EC







SPEC NO: DSAD1054 APPROVED: WYNEC REV NO: V.3 CHECKED: Allen Liu DATE: AUG/01/2011 DRAWN: Y.H.Wu PAGE: 5 OF 5 ERP: 1203001126