

1.6X0.8mm SMD CHIP LED LAMP

Part Number: APT1608EC

High Efficiency Red

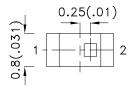
Features

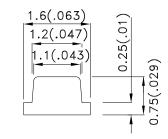
- ●1.6mmX0.8mm SMT LED, 0.75mm THICKNESS.
- •LOW POWER CONSUMPTION.
- •WIDE VIEWING ANGLE.
- •IDEAL FOR BACKLIGHT AND INDICATOR.
- •VARIOUS COLORS AND LENS TYPES AVAILABLE.
- ●PACKAGE: 2000PCS / REEL .
- •MOISTURE SENSITIVITY LEVEL: LEVEL 3.
- ●RoHS COMPLIANT.

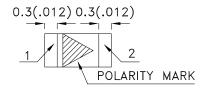
Description

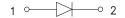
The High Efficiency Red source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Orange Light Emitting Diode.

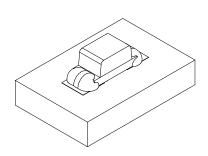
Package Dimensions











- 1. All dimensions are in millimeters (inches).
- 2. Tolerance is $\pm 0.1 (0.004")$ 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.





SPEC NO: DSAD0924 **REV NO: V.9** DATE: MAR/21/2008 PAGE: 1 OF 5 CHECKED: Allen Liu APPROVED: WYNEC DRAWN: Y.F.Lu ERP: 1203001652

Selection Guide

Part No.	Dice	Lens Type	lv (mcd) [2] @ 20mA		Viewing Angle [1]
		-	Min.	Тур.	201/2
APT1608EC	High Efficiency Red (GaAsP/GaP)	WATER CLEAR	4	12	120°

Notes:

- 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 _F =0V;f=1MHz
VF [2]	Forward Voltage	High Efficiency Red	2	2.5	V	I==20mA
lr	Reverse Current	High Efficiency Red		10	uA	V _R =5V

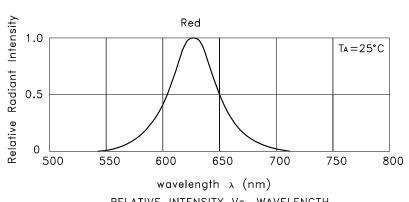
- Notes: 1.Wavelength: +/-1nm. 2. Forward Voltage: +/-0.1V.

Absolute Maximum Ratings at TA=25°C

Parameter	High Efficiency Red		
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		

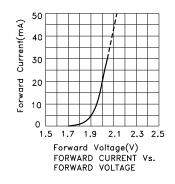
Note: 1. 1/10 Duty Cycle, 0.1ms Pulse Width.

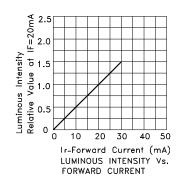
SPEC NO: DSAD0924 **REV NO: V.9** DATE: MAR/21/2008 PAGE: 2 OF 5 APPROVED: WYNEC **CHECKED: Allen Liu** DRAWN: Y.F.Lu ERP: 1203001652

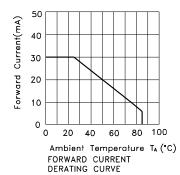


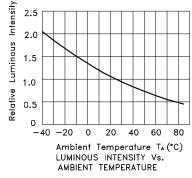
RELATIVE INTENSITY Vs. WAVELENGTH

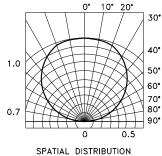
High Efficiency Red APT1608EC







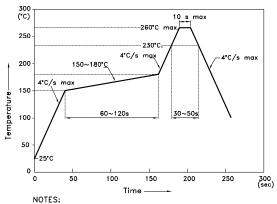




SPEC NO: DSAD0924 **REV NO: V.9** DATE: MAR/21/2008 PAGE: 3 OF 5 APPROVED: WYNEC **CHECKED: Allen Liu** ERP: 1203001652 DRAWN: Y.F.Lu

APT1608EC

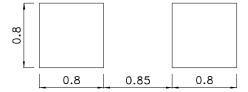
Reflow Soldering Profile For Lead-free SMT Process.



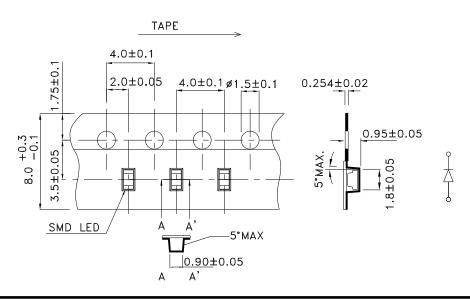
- NOTES:

 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)



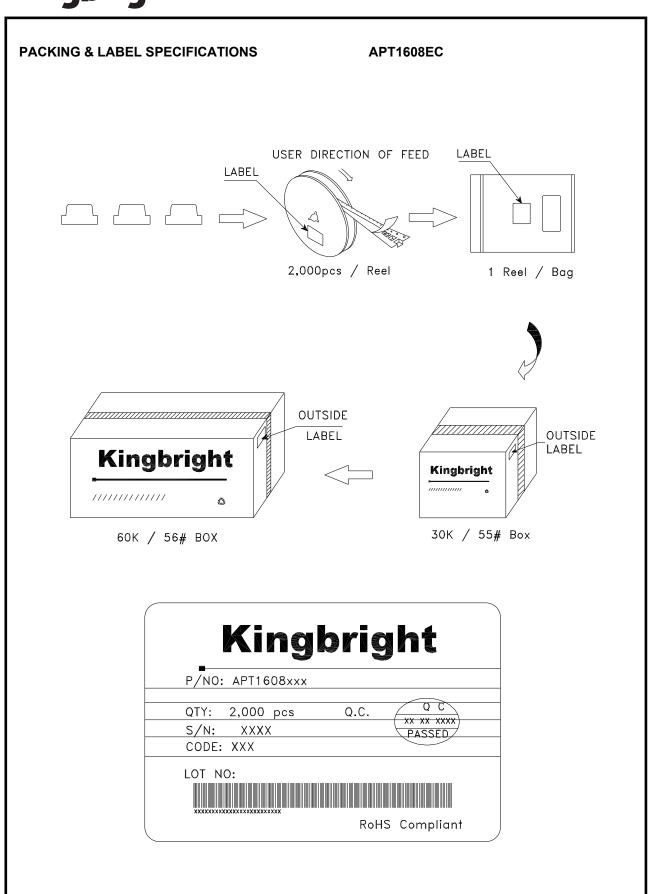
Tape Specifications (Units: mm)



SPEC NO: DSAD0924 APPROVED: WYNEC

REV NO: V.9 CHECKED: Allen Liu DATE: MAR/21/2008 DRAWN: Y.F.Lu

PAGE: 4 OF 5 ERP: 1203001652



SPEC NO: DSAD0924 APPROVED: WYNEC REV NO: V.9 CHECKED: Allen Liu DATE: MAR/21/2008 DRAWN: Y.F.Lu PAGE: 5 OF 5 ERP: 1203001652