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Part Number: APTD1608SEC/J3   Hyper Red

Features

- 1.6mmX0.8mm SMT LED, 0.95mm 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 Hyper Red device is based on light emitting diode chip made from AlGaInP.

Package Dimensions

POLARITY MARK
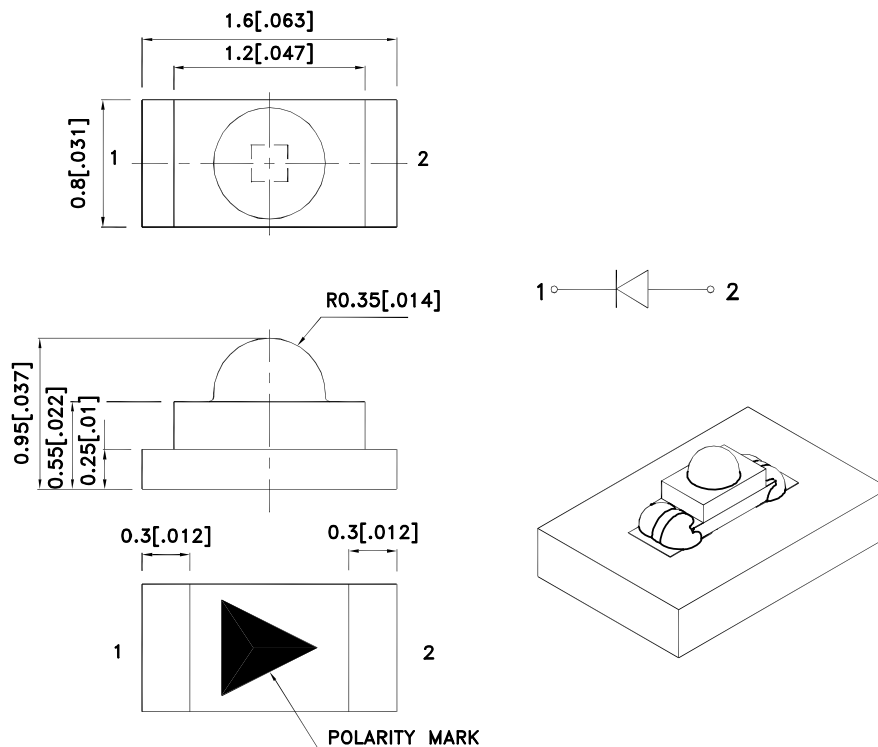
Notes:
1. All dimensions are in millimeters (inches).
2. Tolerance is ±0.15(0.006") unless otherwise noted.
3. The specifications, characteristics and technical data described in the datasheet are subject to change without prior notice.
4. The device has a single mounting surface. The device must be mounted according to the specifications.

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Selection Guide

Part No.	Dice	Lens Type	Iv (mcd) [2] @ 20mA		Viewing Angle [1]
			Min.	Typ.	2θ1/2
APTD1608SEC/J3	Hyper Red (AlGaInP)	Water Clear	2300	3000	60°

Notes:
1. θ1/2 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	Typ.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	Hyper Red	640		nm	I_F=20mA
λD [1]	Dominant Wavelength	Hyper Red	625		nm	I_F=20mA
$\Delta\lambda$1/2	Spectral Line Half-width	Hyper Red	25		nm	I_F=20mA
C	Capacitance	Hyper Red	27		pF	V_F=0V;f=1MHz
V_F [2]	Forward Voltage	Hyper Red	2.2	2.8	V	I_F=20mA
I_R	Reverse Current	Hyper Red		10	uA	V_R=5V

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

Absolute Maximum Ratings at TA=25°C

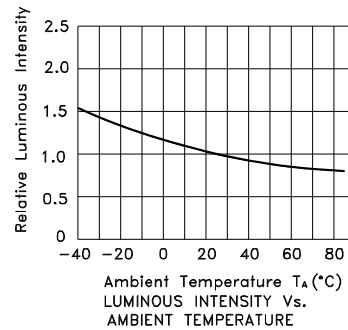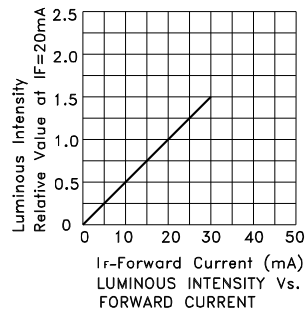| Parameter	Hyper Red	Units
Power dissipation	84	mW
DC Forward Current	30	mA
Peak Forward Current [1]	150	mA
Reverse Voltage	5	V
Operating Temperature	-40°C To +85°C	
Storage Temperature	-40°C To +85°C	

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

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RELATIVE INTENSITY Vs. WAVELENGTH
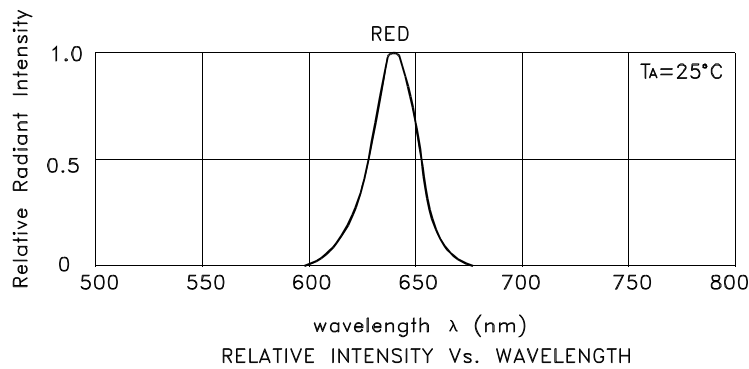
Hyper Red   **APTD1608SEC/J3**

FORWARD CURRENT Vs. FORWARD VOLTAGE

LUMINOUS INTENSITY Vs. FORWARD CURRENT

FORWARD CURRENT DERATING CURVE

LUMINOUS INTENSITY Vs. AMBIENT TEMPERATURE

SPATIAL DISTRIBUTION

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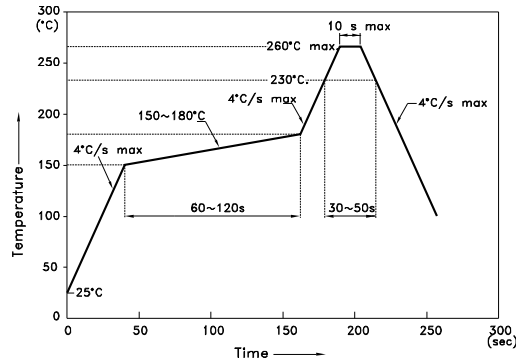**APPROVED: WYNEC**   **CHECKED: Allen Liu**   **DRAWN: Y.H.Wu**   **ERP: 1203010338**

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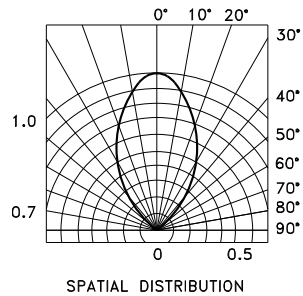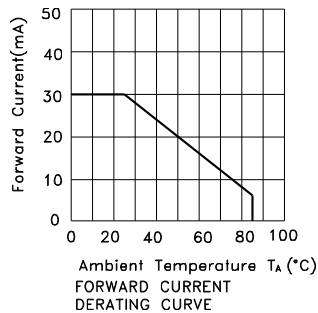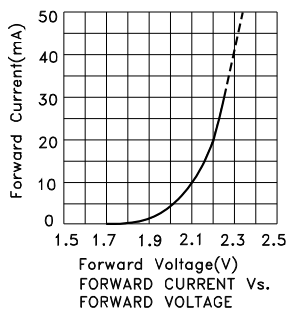
APTD1608SEC/J3

Reflow soldering is recommended and the soldering profile is shown below.
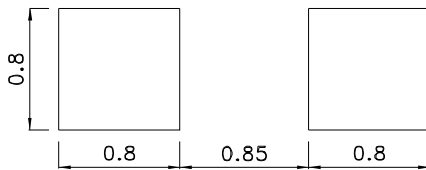Other soldering methods are not recommended as they might cause damage to the product.

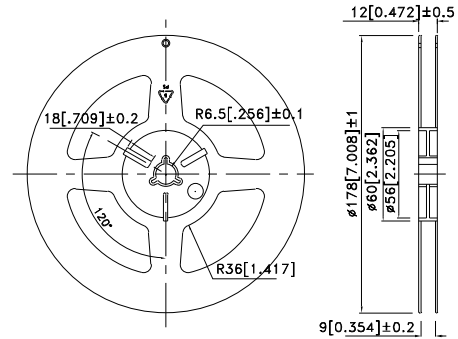Reflow Soldering Profile For Lead-free SMT Process.

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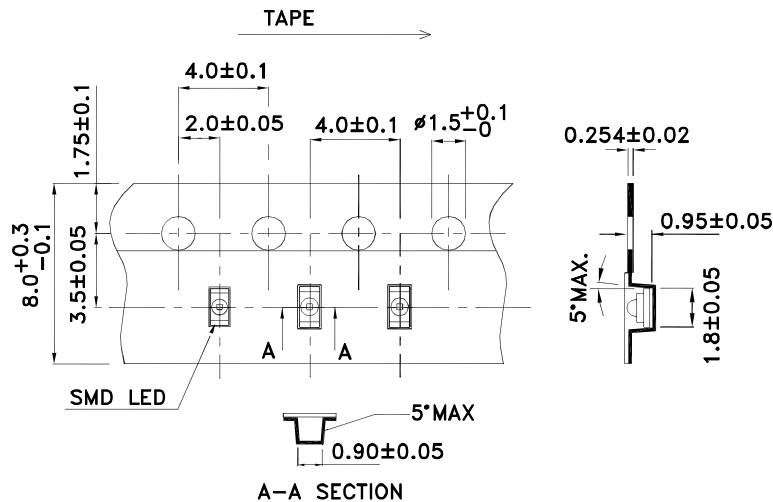3. Number of reflow process shall be 2 times or less.

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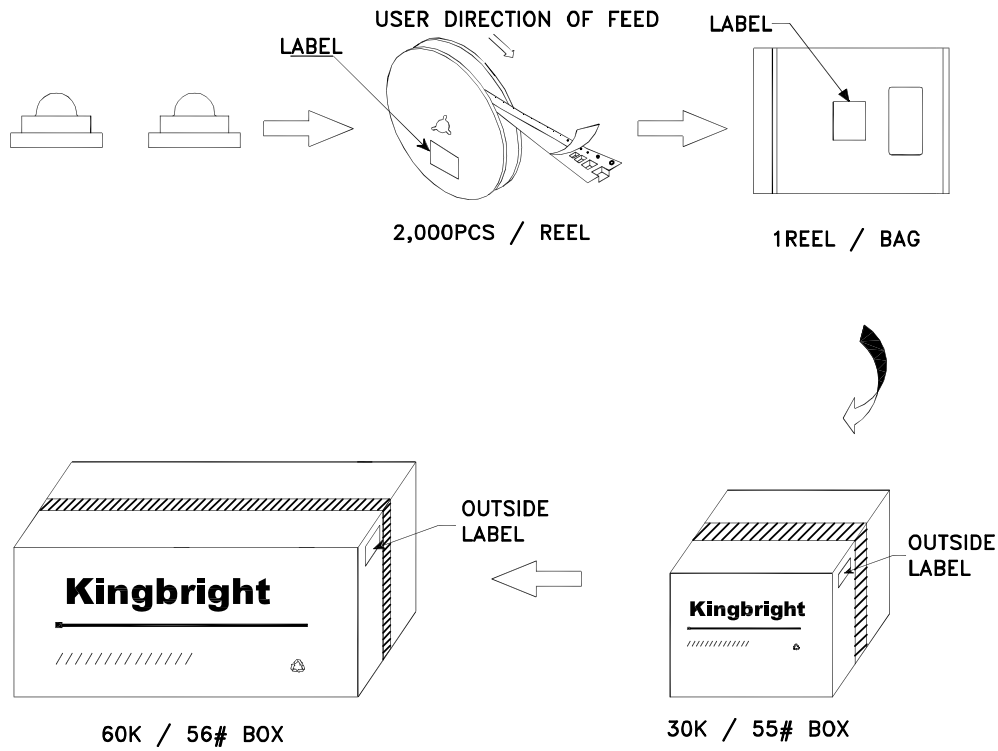**(Units : mm; Tolerance: ± 0.1)**

Reel Dimension

Tape Dimensions
(Units : mm)

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PACKING & LABEL SPECIFICATIONS   **APTD1608SEC/J3**

USER DIRECTION OF FEED

LABEL

LABEL

2,000PCS / REEL

1REEL / BAG

OUTSIDE
LABEL

OUTSIDE
LABEL

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60K / 56# BOX

30K / 55# BOX

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P/NO: APTD1608xxx

QTY: 2,000 pcs   Q.C.

S/N: XXXX

CODE: XXX

LOT NO:

Q C
XX XX XXXX
PASSED

xxxxxxxxxxxxxxxxxxxxxxxxxx

RoHS Compliant

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