



ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES

Part Number: APT2012LSECK/J3-PRV Hyper Red

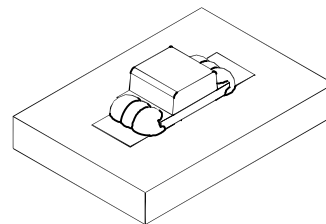
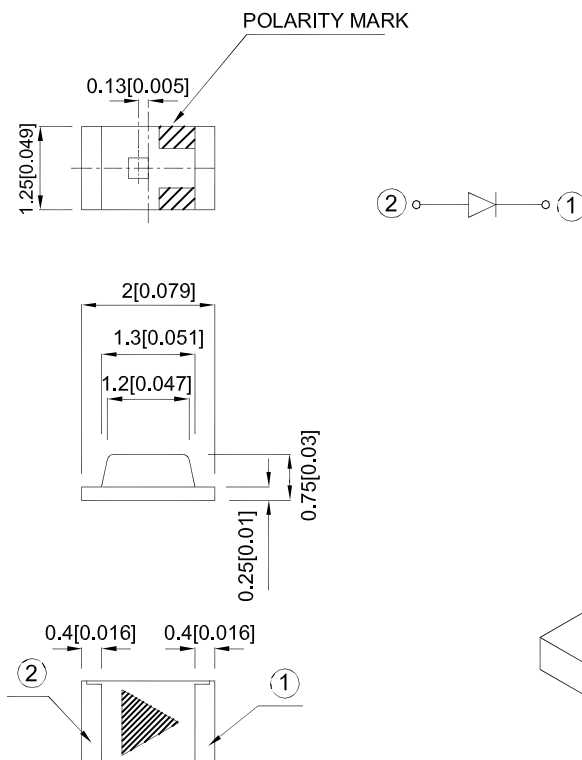
Features

- 2.0mmx1.25mm SMD LED, 0.75mm thickness.
- Low power consumption.
- Wide viewing angle.
- Ideal for backlight and indicator.
- Package : 2000pcs / reel.
- Moisture sensitivity level : level 3.
- Low current IF=2mA operating.
- RoHS compliant.

Descriptions

- The Hyper Red device is based on light emitting diode chip made from AlGaInP.
- Electrostatic discharge and power surge could damage the LEDs.
- It is recommended to use a wrist band or anti-electrostatic glove when handling the LEDs.
- All devices, equipment and machinery must be electrically grounded.

Package Dimensions



Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is ± 0.1 (0.004") 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.



Selection Guide

Part No.	Emitting Color (Material)	Lens Type	Iv (mcd) [2] @ 2mA		Viewing Angle [1]
			Min.	Typ.	2θ1/2
APT2012LSECK/J3-PRV	Hyper Red (AlGaInP)	Water Clear	50	100	140°
			*20	*40	

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%.

*Luminous intensity value is traceable to CIE127-2007 standards.

Electrical / Optical Characteristics at TA=25°C

Symbol	Parameter	Emitting Color	Min.	Typ.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	Hyper Red		640		nm	IF=2mA
λD [1]	Dominant Wavelength	Hyper Red		625		nm	IF=2mA
Δλ1/2	Spectral Line Half-width	Hyper Red		20		nm	IF=2mA
C	Capacitance	Hyper Red		27		pF	VF=0V;f=1MHz
VF [2]	Forward Voltage	Hyper Red	1.5	1.8	2.1	V	IF=2mA
IR	Reverse Current	Hyper Red			10	uA	VR=5V

Notes:

1.Wavelength: +/-1nm.

2.Forward Voltage: +/-0.1V.

3.Wavelength value is traceable to CIE127-2007 standards.

4.Excess driving current and/or operating temperature higher than recommended conditions may result in severe light degradation or premature failure.

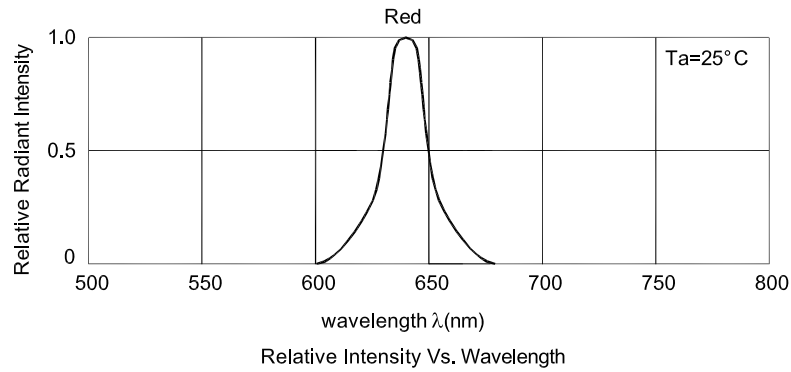
Absolute Maximum Ratings at TA=25°C

Parameter	Values	Units
Power dissipation	63	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	

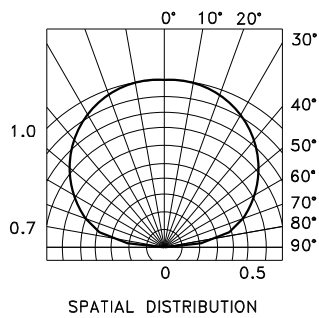
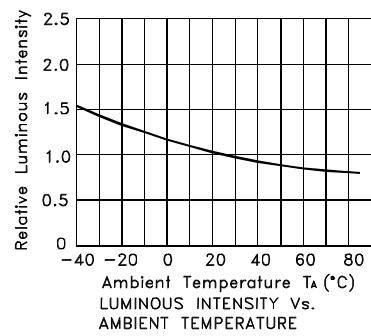
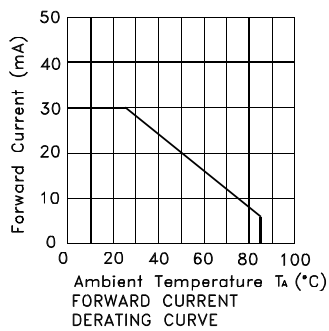
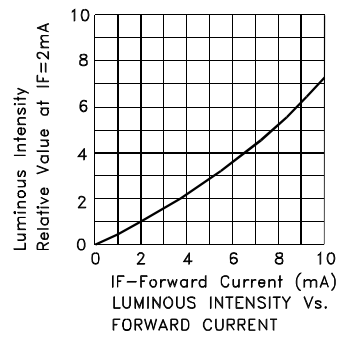
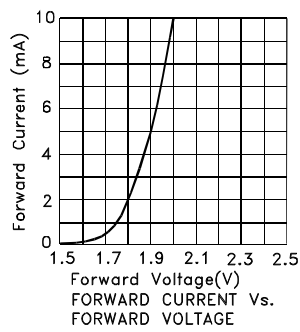
Notes:

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

2. Relative humidity levels maintained between 40% and 60% in production area are recommended to avoid the build-up of static electricity – Ref JEDEC/JESD625-A and JEDEC/J-STD-033.



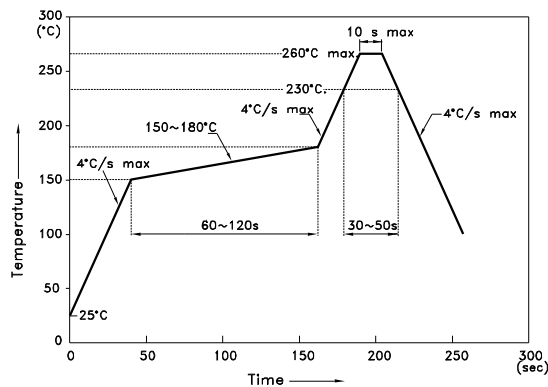
Hyper Red APT2012LSECK/J3-PRV



APT2012LSECK/J3-PRV

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.

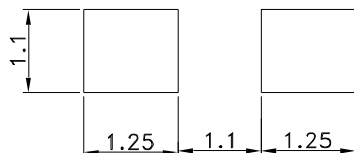
Reflow Soldering Profile For Lead-free SMT Process.



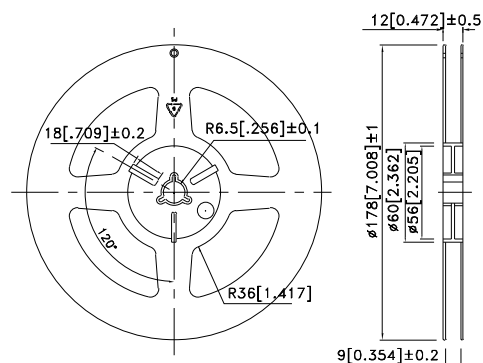
NOTES:

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.

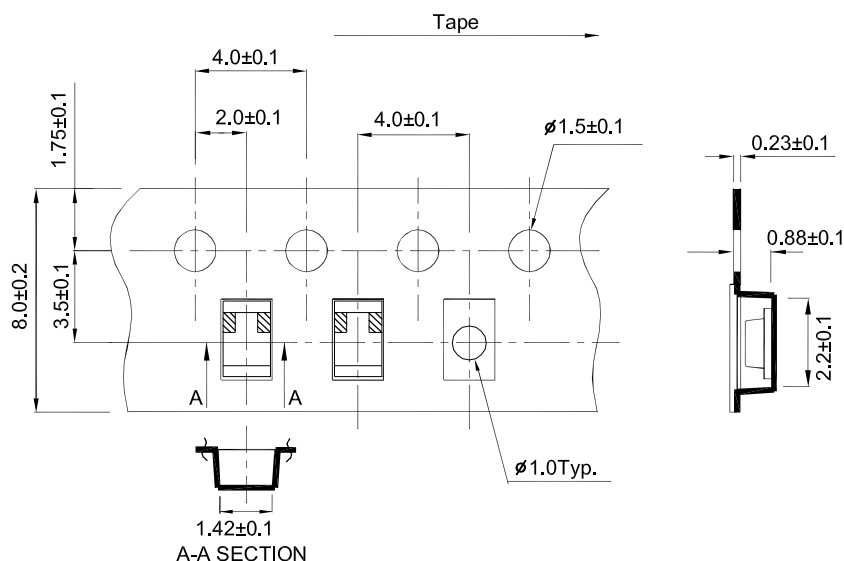
Recommended Soldering Pattern (Units : mm; Tolerance: ± 0.1)



Reel Dimension

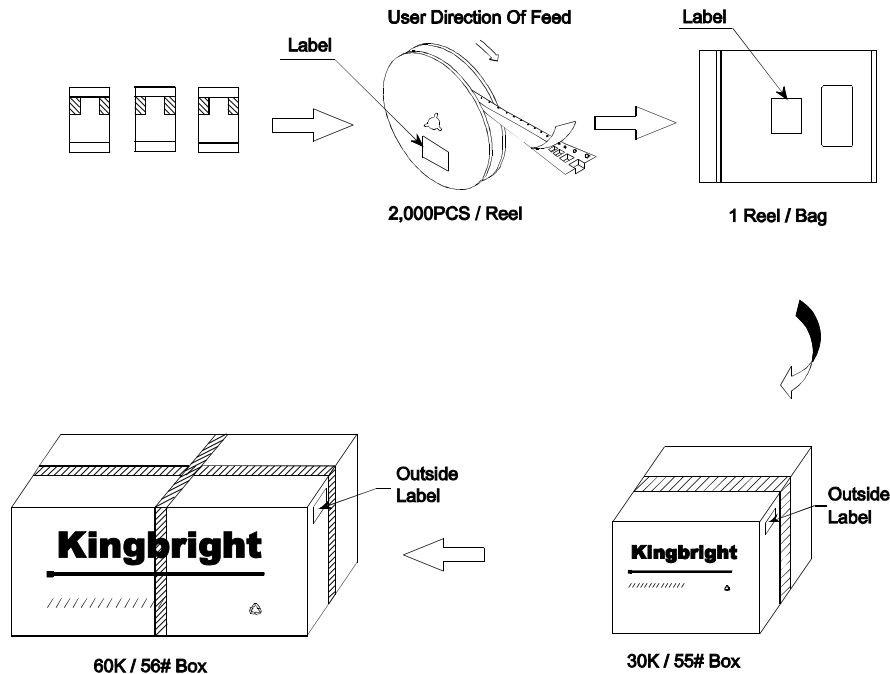


Tape Dimensions (Units : mm)



PACKING & LABEL SPECIFICATIONS

APT2012LSECK/J3-PRV



Kingbright		XXXXXXXXXXXXXXXXXX	
CODE: XXXX		D/C: XXX XX XXXX XXXXXXXXXXXX-XXXX	
(1P) MFG P/N: XXXXXXXXXXXXXXXX			
(Q) QTY: XXXX			
(9D) DATE CODE: XXXX	(33P) CODE: XXXX		
(4L) COO: XX			
(1T) TRACEABILITY: XXXXXXXXXXXX-XXXX			
		1 RoHS Compliant	

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