

Part Number: KPPA-3010SURCK Hyper Red



ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES

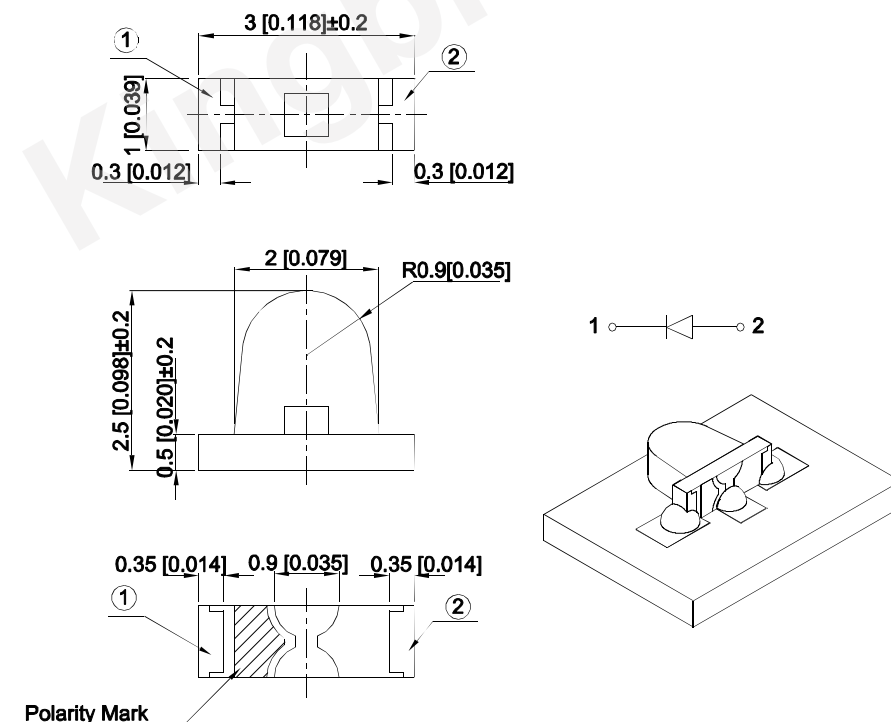
Features

- 3.0x2.5x1.0mm right angle SMD LED, 1.0mm thickness.
- Low power consumption.
- Ideal for back light and indicator.
- Package : 2000pcs / reel.
- Moisture sensitivity level : level 3.
- Tinned pads for improved solderability.
- RoHS compliant.

Descriptions

- The Hyper Red source color devices are made with AlGaInP on GaAs substrate Light Emitting Diode.
- 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, equipments and machineries must be electrically grounded.

Package Dimensions



Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is $\pm 0.15(0.006")$ 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.



Selection Guide

Part No.	Emitting Color (Material)	Lens Type	Iv (mcd) [2] @ 20mA		Viewing Angle [1]
			Min.	Typ.	2θ1/2
KPPA-3010SURCK	Hyper Red (AlGaInP)	Water Clear	500	800	30°
			*200	*300	

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	Typ.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	Hyper Red	645		nm	If=20mA
λD [1]	Dominant Wavelength	Hyper Red	630		nm	If=20mA
Δλ1/2	Spectral Line Half-width	Hyper Red	28		nm	If=20mA
C	Capacitance	Hyper Red	35		pF	Vf=0V;f=1MHz
Vf [2]	Forward Voltage	Hyper Red	1.95	2.5	V	If=20mA
IR	Reverse Current	Hyper Red		10	uA	VR=5V

Notes:

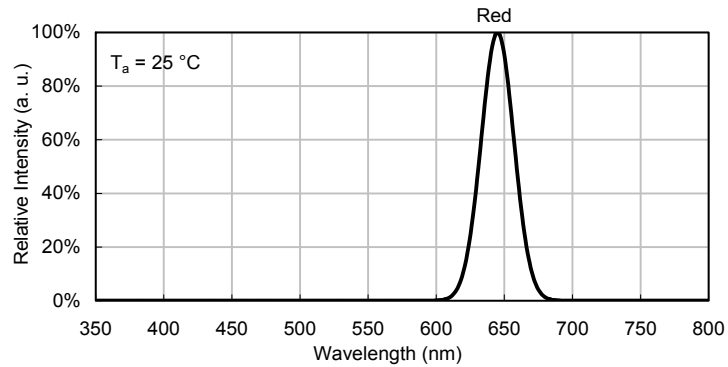
1. Wavelength: +/-1nm.
2. Forward Voltage: +/-0.1V.
3. Wavelength value is traceable to CIE127-2007 standards.
4. Excess driving current and / or operating temperature higher than recommended conditions may result in severe light degradation or premature failure.

Absolute Maximum Ratings at TA=25°C

Parameter	Values	Units
Power dissipation	75	mW
DC Forward Current	30	mA
Peak Forward Current [1]	185	mA
Reverse Voltage	5	V
Operating Temperature	-40°C To +85°C	
Storage Temperature	-40°C To +85°C	

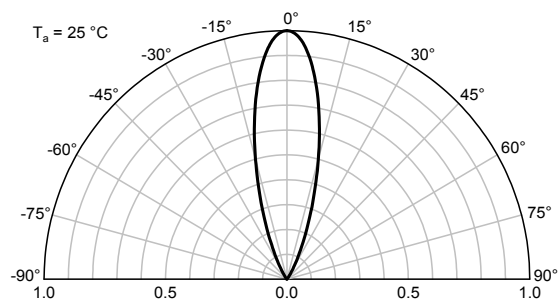
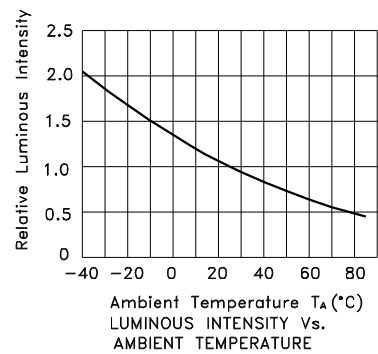
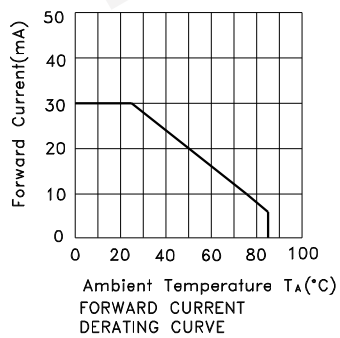
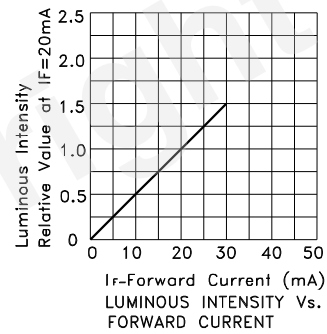
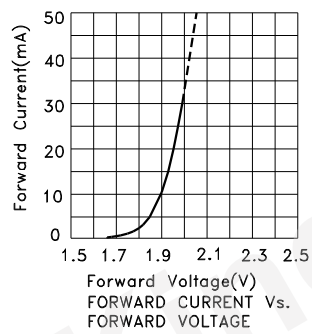
Notes:

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.



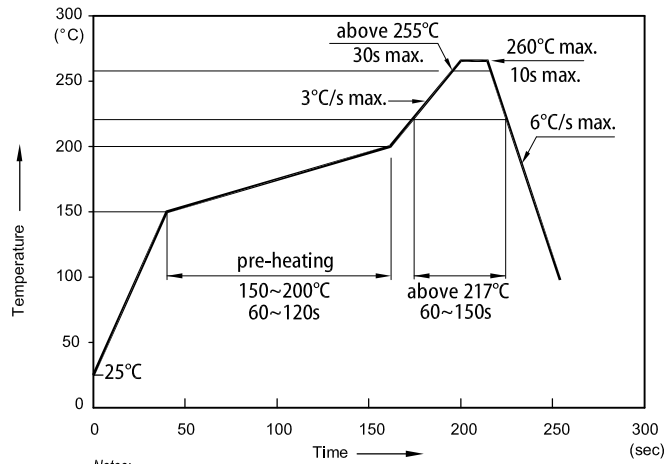
Hyper Red

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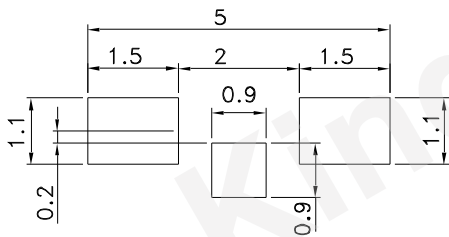
Reflow Soldering Profile for Lead-free SMD Process



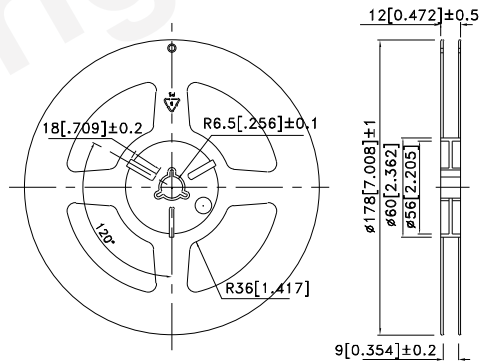
Notes:

1. Don't cause stress to the LEDs while it is exposed to high temperature.
2. The maximum number of reflow soldering passes is 2 times.
3. Reflow soldering is recommended. Other soldering methods are not recommended as they might cause damage to the product.

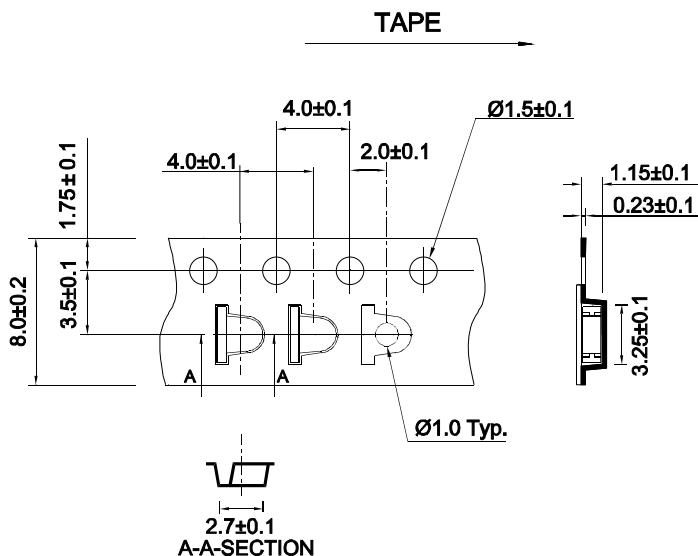
Recommended Soldering Pattern (Units : mm; Tolerance: ± 0.1)



Reel Dimension

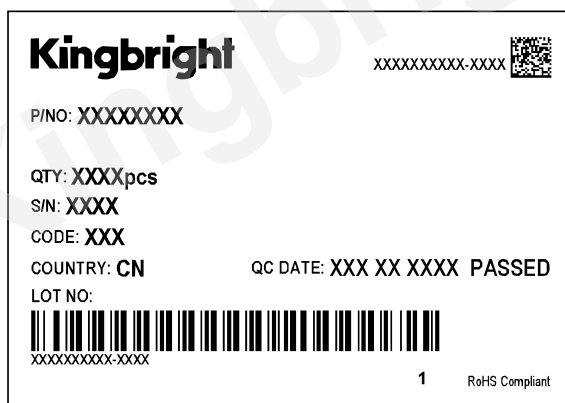
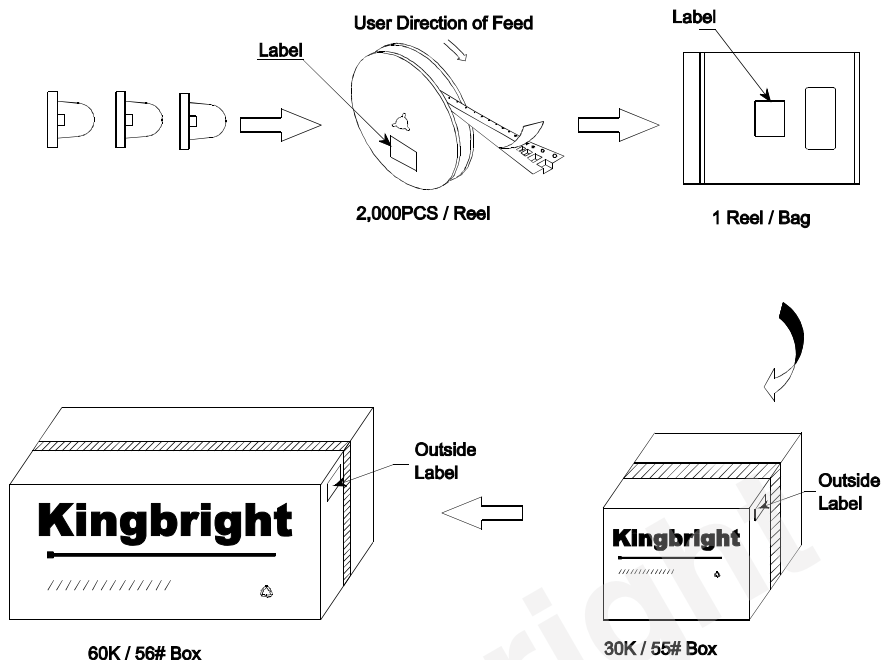


Tape Dimensions (Units : mm)



PACKING & LABEL SPECIFICATIONS

KPPA-3010SURCK



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