

Part Number: KPHM-1608SURCK

Hyper Red

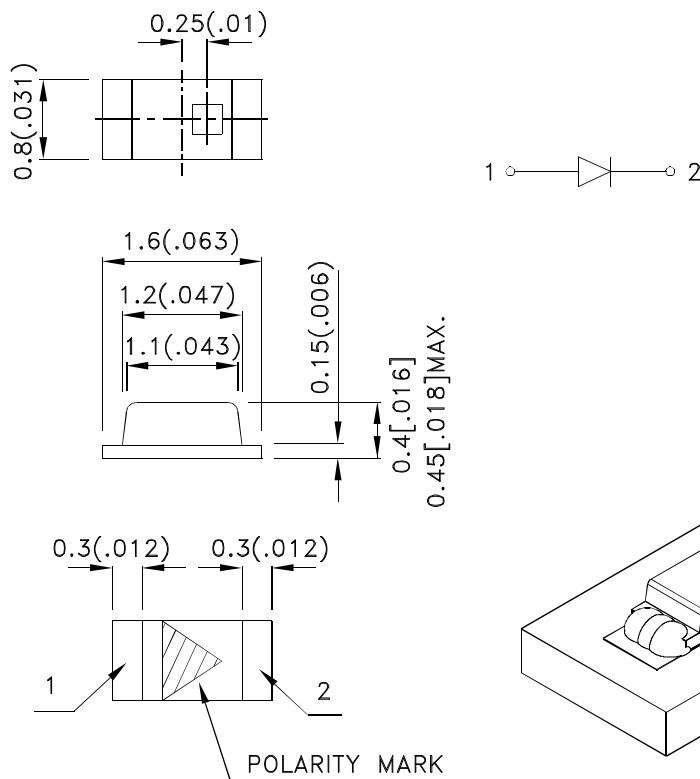
Features

- 1.6mmx0.8mm SMT LED, 0.45mm max. 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 source color devices are made with Al-GaNp on GaAs substrate Light Emitting Diode.

Package Dimensions



Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is $\pm 0.1(0.004)$ 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.	Dice	Lens Type	Iv (mcd) [2] @ 20mA		Viewing Angle [1]
			Min.	Typ.	2θ1/2
KPHM-1608SURCK	Hyper Red (AlGaInP)	Water Clear	120	230	120°
			*40	*80	

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 the CIE127-2007 compliant national standards.

Electrical / Optical Characteristics at TA=25°C

Symbol	Parameter	Device	Typ.		Max.	Units	Test Conditions
λ _{peak}	Peak Wavelength	Hyper Red	650	*645		nm	I _F =20mA
λ _D [1]	Dominant Wavelength	Hyper Red	630	*630		nm	I _F =20mA
Δλ _{1/2}	Spectral Line Half-width	Hyper Red	28			nm	I _F =20mA
C	Capacitance	Hyper Red	35			pF	V _F =0V;f=1MHz
V _F [2]	Forward Voltage	Hyper Red	1.95		2.5	V	I _F =20mA
I _R	Reverse Current	Hyper Red			10	uA	V _R =5V

Notes:

1. Wavelength: +/-1nm.
 2. Forward Voltage: +/-0.1V.
- * Wavelength value is traceable to the CIE127-2007 compliant national standards.

Absolute Maximum Ratings at TA=25°C

Parameter	Hyper Red	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	

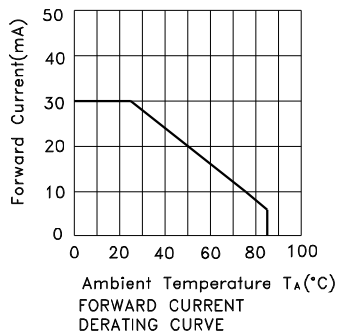
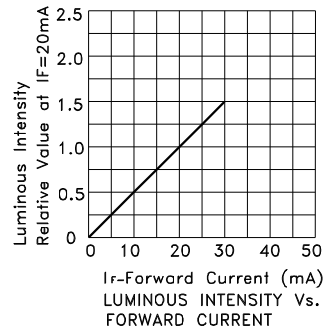
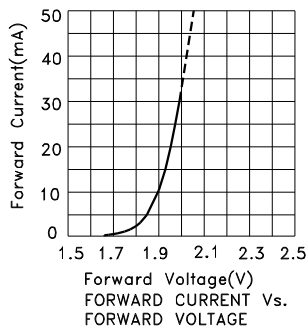
Note:

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



Hyper Red

KPHM-1608SURCK



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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.

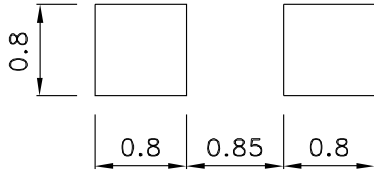
Reflow Soldering Profile For Lead-free SMT Process.



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.

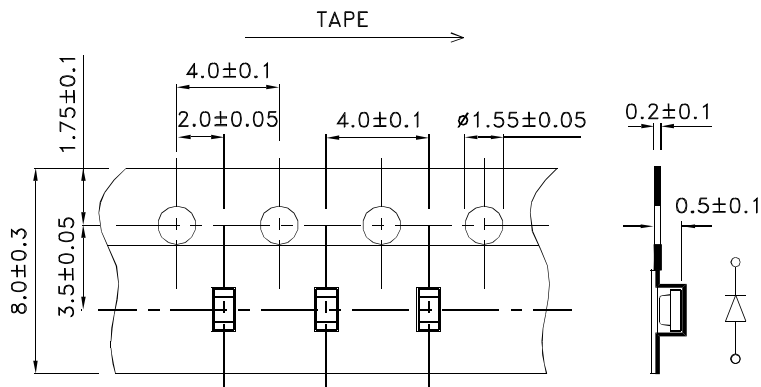
Recommended Soldering Pattern (Units : mm; Tolerance: ± 0.1)



Reel Dimension



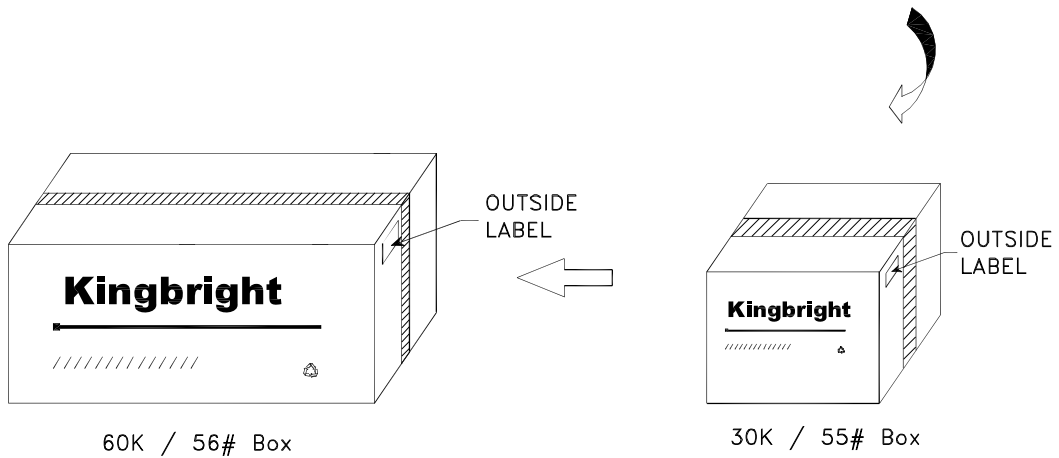
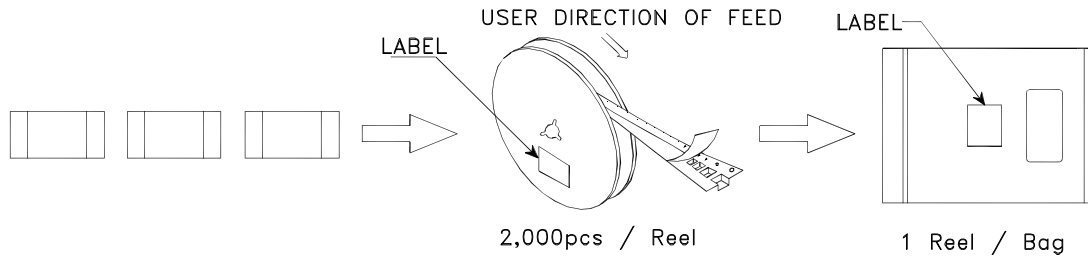
Tape Dimensions (Units : mm)




Kingbright

PACKING & LABEL SPECIFICATIONS

KPHM-1608SURCK



Kingbright		
P/NO: KPHM-1608xxx		
QTY: 2,000 pcs	Q.C.	Q C XX XX XXXX PASSED
S/N: XXXX		
CODE: XXX		
LOT NO:		
 xxxxxxxxxxxxxxxxxxxxxxxxxxxx		
RoHS Compliant		