

Part Number: KAA-3528SURKSYKCT

Hyper Red
Super Bright Yellow

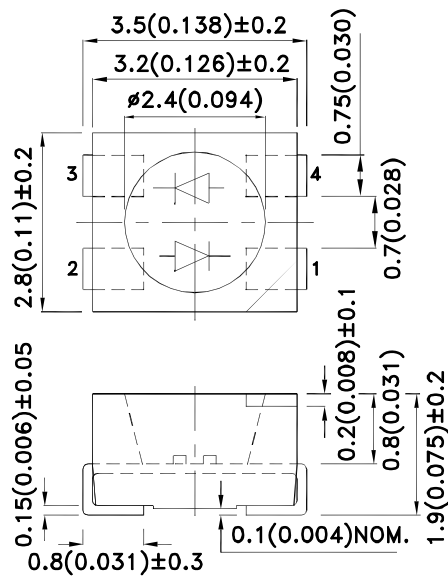
Features

- Both chips can be controlled separately.
- Suitable for all SMT assembly and solder process.
- Available on tape and reel.
- Package: 1500pcs / reel.
- Moisture sensitivity level : level 4.
- RoHS compliant.

Description

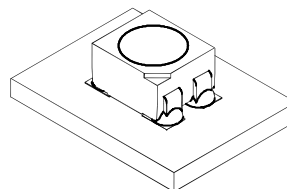
The Hyper Red source color devices are made with Al-GaN on GaAs substrate Light Emitting Diode.
The Super Bright Yellow device is made with AlGaInP (on GaAs substrate) light emitting diode chip.

Package Dimensions



SYK
3 — 4

SURK
2 — 1



Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is $\pm 0.25(0.01)$ 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.	θ1/2
KAA-3528SURKSYKCT	Hyper Red (AlGaInP)	Water Clear	200	320	120°
	Super Bright Yellow (AlGaInP)		120	200	

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 Super Bright Yellow	650 590		nm	IF=20mA
λD [1]	Dominant Wavelength	Hyper Red Super Bright Yellow	630 590		nm	IF=20mA
Δλ1/2	Spectral Line Half-width	Hyper Red Super Bright Yellow	28 20		nm	IF=20mA
C	Capacitance	Hyper Red Super Bright Yellow	35 20		pF	VF=0V;f=1MHz
VF [2]	Forward Voltage	Hyper Red Super Bright Yellow	1.95 2	2.5 2.5	V	IF=20mA
IR	Reverse Current	Hyper Red Super Bright Yellow		10 10	uA	VR = 5V

Notes:

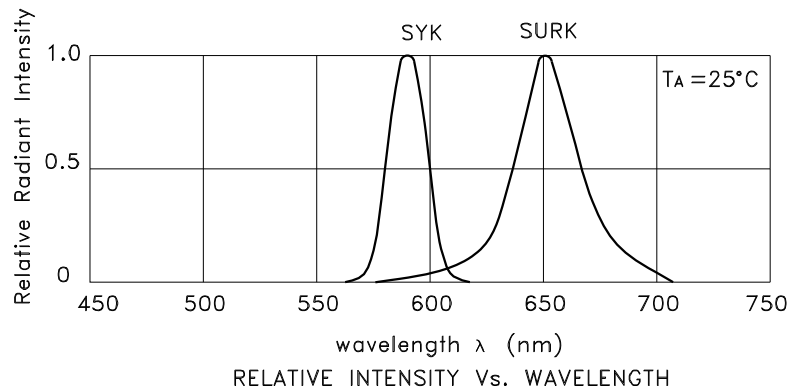
- 1.Wavelength: +/-1nm.
2. Forward Voltage: +/-0.1V.

Absolute Maximum Ratings at TA=25°C

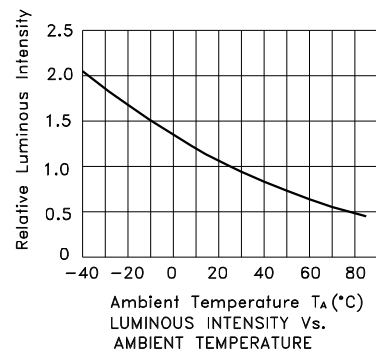
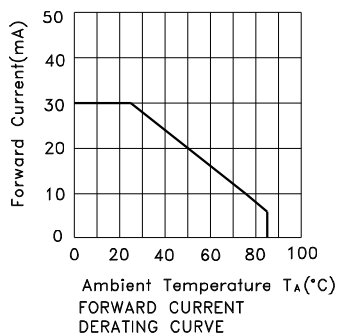
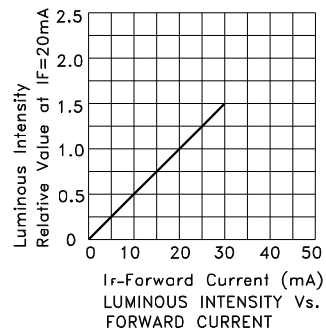
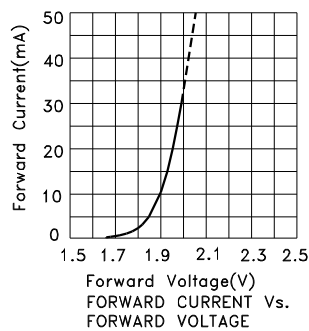
Parameter	Hyper Red	Super Bright Yellow	Units
Power dissipation	75	75	mW
DC Forward Current	30	30	mA
Peak Forward Current [1]	185	175	mA
Reverse Voltage	5		V
Operating Temperature	-40°C To +85°C		
Storage Temperature	-40°C To +85°C		

Note:

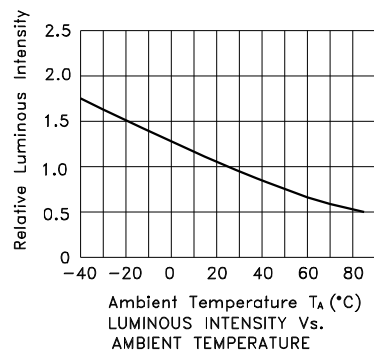
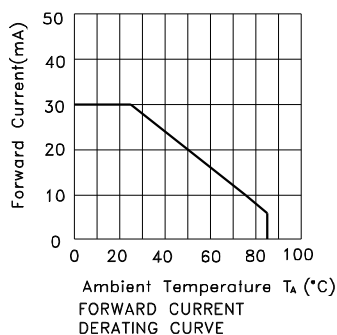
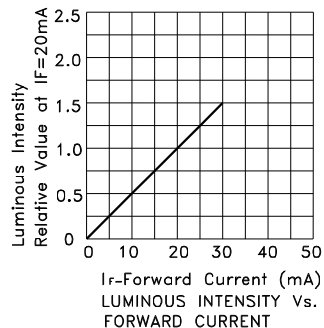
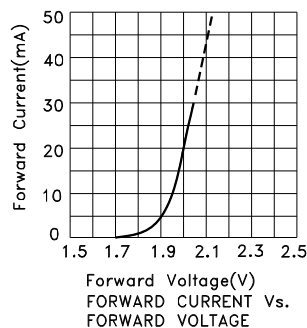
1. 1/10 Duty Cycle, 0.1ms Pulse Width.



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Hyper Red



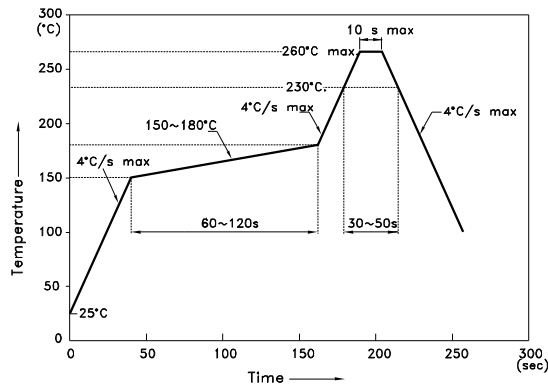
Super Bright Yellow



KAA-3528SURKSYKCT

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.

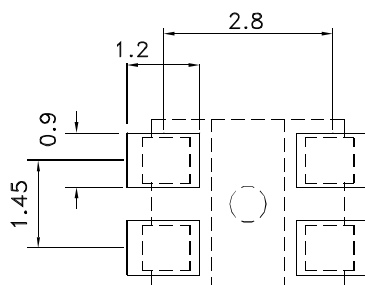
Reflow Soldering Profile For Lead-free SMT Process.



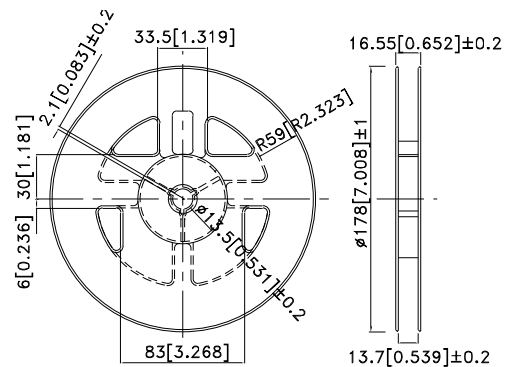
NOTES:

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.

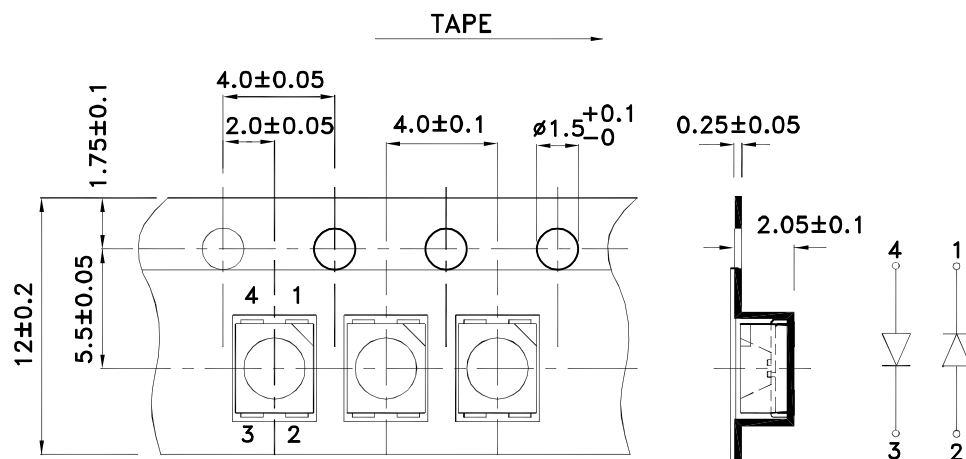
Recommended Soldering Pattern (Units : mm; Tolerance: ± 0.1)



Reel Dimension

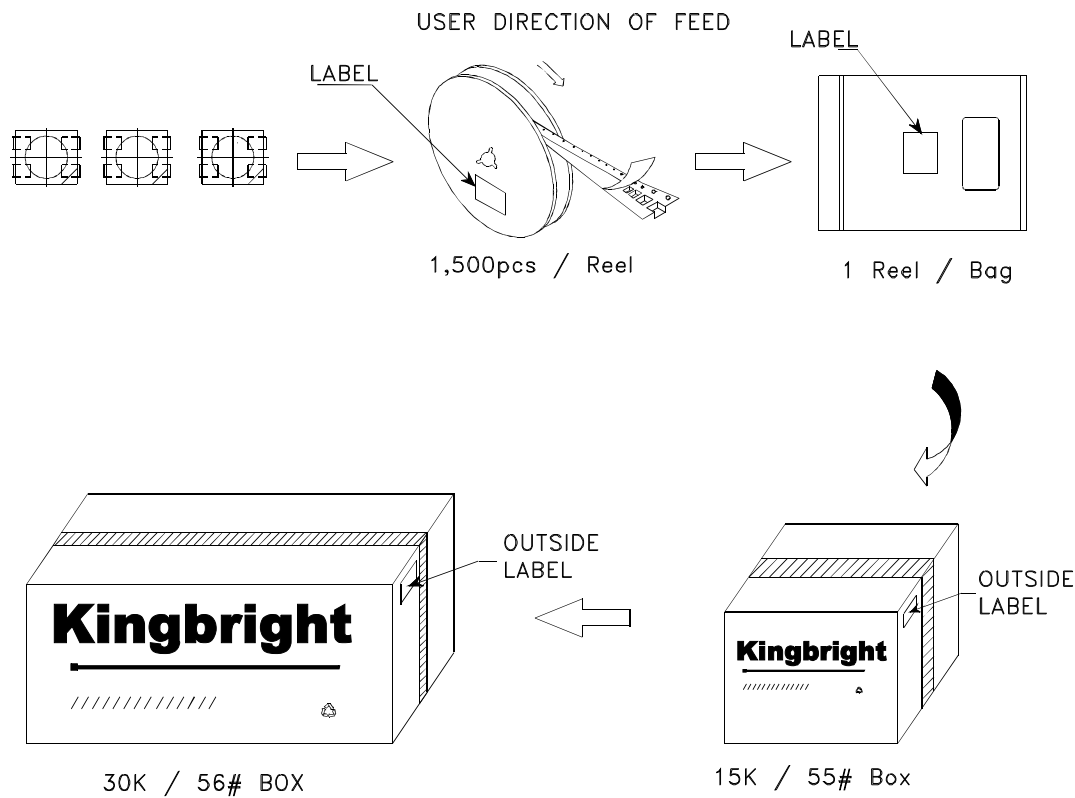



Tape Dimensions (Units : mm)



PACKING & LABEL SPECIFICATIONS

KAA-3528SURKSYKCT



Kingbright	
P/NO:KAA-3528xxx	
QTY: 1,500 pcs	Q.C. <div>Q C XX XX XXXX PASSED</div>
S/N: XXXX	
CODE: XXX	
LOT NO:  xxxxxxxxxxxxxxxxxxxxxxxxxx	
RoHS Compliant	