

### SUBMINIATURE SOLID STATE LAMP

Part Number: KM-27SURCK-09 Hyper Red

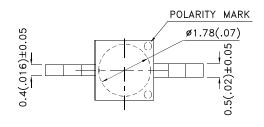
### **Features**

- Subminiature package.
- Z-Bend lead.
- Long life solid state reliability.
- Low package profile.
- Package :1000pcs / reel.
- Moisture sensitivity level : level 3.
- RoHS compliant.

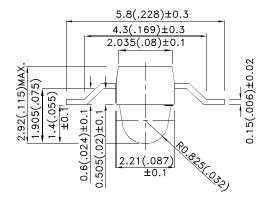
## Description

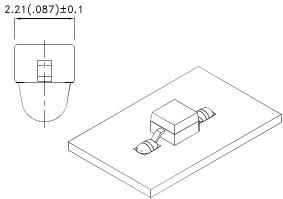
The Hyper Red source color devices are made with Al-GaInP on GaAs substrate Light Emitting Diode.

## **Package Dimensions**









- All dimensions are in millimeters (inches).
   Tolerance is ±0.25(0.01") unless otherwise noted.
- 3. Lead spacing is measured where the leads emerge from the package.
- 4. The specifications, characteristics and technical data described in the datasheet are subject to change without prior notice.
- 5. The device has a single mounting surface. The device must be mounted according to the specifications.

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## **Selection Guide**

Part No.	art No. Dice Lens Type		lv (mcd) [2] @ 20mA		Viewing Angle [1]
		7,1		Тур.	201/2
KM-27SURCK-09	Hyper Red (AlGaInP)	Water Clear	1500	2400	20°

- 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	Тур.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	Hyper Red	650		nm	I=20mA
λD [1]	Dominant Wavelength	Hyper Red	630		nm	IF=20mA
Δλ1/2	Spectral Line Half-width	Hyper Red	28		nm	IF=20mA
С	Capacitance	Hyper Red	35		pF	VF=0V;f=1MHz
VF [2]	Forward Voltage	Hyper Red	1.95	2.5	V	I=20mA
lR	Reverse Current	Hyper Red		10	uA	V <sub>R</sub> =5V

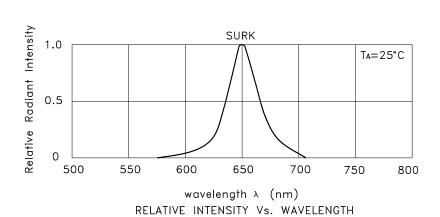
- 1.Wavelength: +/-1nm. 2. Forward Voltage: +/-0.1V.

### Absolute Maximum Ratings at TA=25°C

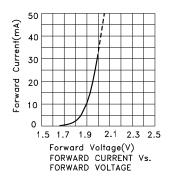
Parameter	Hyper Red	Units		
Power dissipation	75	mW		
DC Forward Current	30	mA		
Peak Forward Current [1]	185	mA		
Reverse Voltage	5	V		
Operating Temperature	-40°C To +85°C			
Storage Temperature	-40°C To +85°C			

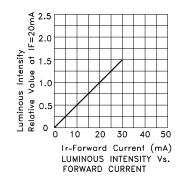
1. 1/10 Duty Cycle, 0.1ms Pulse Width.

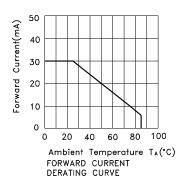
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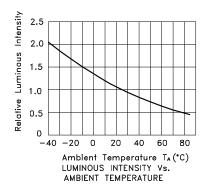


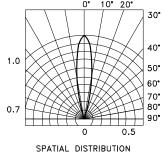
Hyper Red KM-27SURCK-09











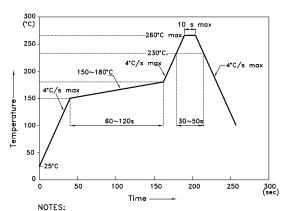
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### KM-27SURCK-09

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.



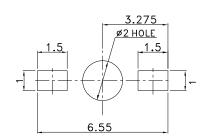
- NOTES:

  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.

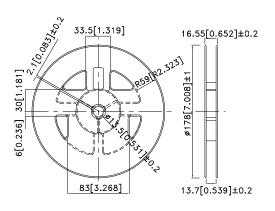
  3.Number of reflow process shall be 2 times or less.

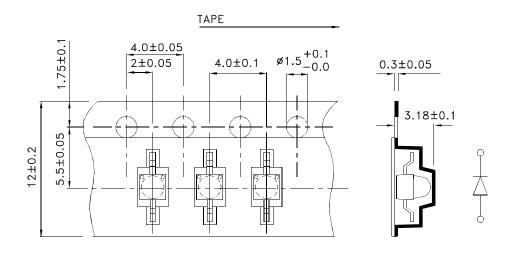
## **Recommended Soldering Pattern** (Units: mm; Tolerance: ± 0.1)



# **Tape Dimensions** (Units: mm)

## **Reel Dimension**

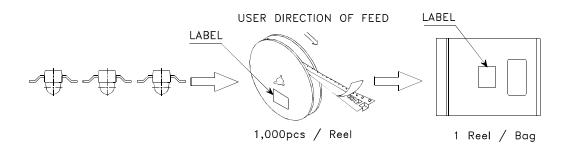


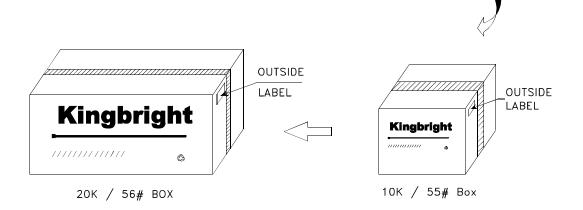


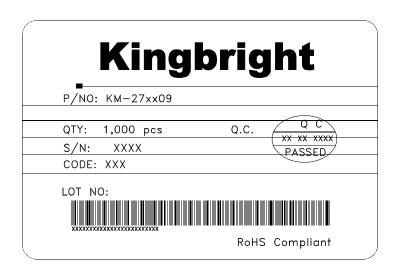
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### **PACKING & LABEL SPECIFICATIONS**

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