

#### SUBMINIATURE SOLID STATE LAMP

KM-27YD-08

YELLOW

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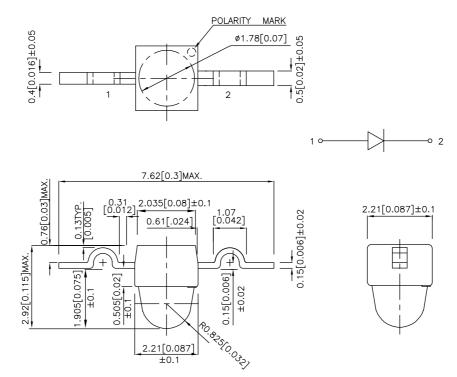
#### **Features**

- •SUBMINIATURE PACKAGE.
- •WIDE VIEWING ANGLE.
- •YOKE LEAD.
- •LONG LIFE-SOLID STATE RELIABILITY.
- •LOW PACKAGE PROFILE.
- •PACKAGE: 1000PCS/REEL.
- •Rohs Compliant.

#### **Description**

The Yellow source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Yellow Light Emitting Diode.

### **Package Dimensions**



#### Notes:

- 1. All dimensions are in millimeters (inches).
- 2. Tolerance is ±0.25(0.01") unless otherwise noted.
- $\ensuremath{\mathsf{3}}.$  Lead spacing is measured where the leads emerge from the package.
- 4. Specifications are subject to change without notice.

SPEC NO: DSAC2419 REV NO: V.3 DATE: MAR/22/2005
APPROVED: J. Lu CHECKED: Allen Liu DRAWN: Y.W.WANG

# Kingbright

### **Selection Guide**

Part No.	Dice	Lens Type	lv (mcd) @ 20mA		Viewing Angle
			Min.	Тур.	201/2
KM-27YD-08	YELLOW (GaAsP/GaP)	YELLOW DIFFUSED	2.6	10	40°

## Electrical / Optical Characteristics at Ta=25°C

Symbol	Parameter	Device	Тур.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	Yellow	590		nm IF=20mA	
λD	Dominant Wavelength	Yellow	588		nm	IF=20mA
Δλ1/2	Spectral Line Half-width	Yellow	35		nm	IF=20mA
С	Capacitance	Yellow	20		pF	VF=0V;f=1MHz
VF	Forward Voltage	Yellow	2.1	2.5	V IF=20mA	
lR	Reverse Current	Yellow		10	uA	VR = 5V

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

Parameter	Yellow		
Power dissipation	105	mW	
DC Forward Current	30	mA	
Peak Forward Current [1]	140	mA	
Reverse Voltage	5	V	
Operating / Storage Temperature	-40°C To +85°C		

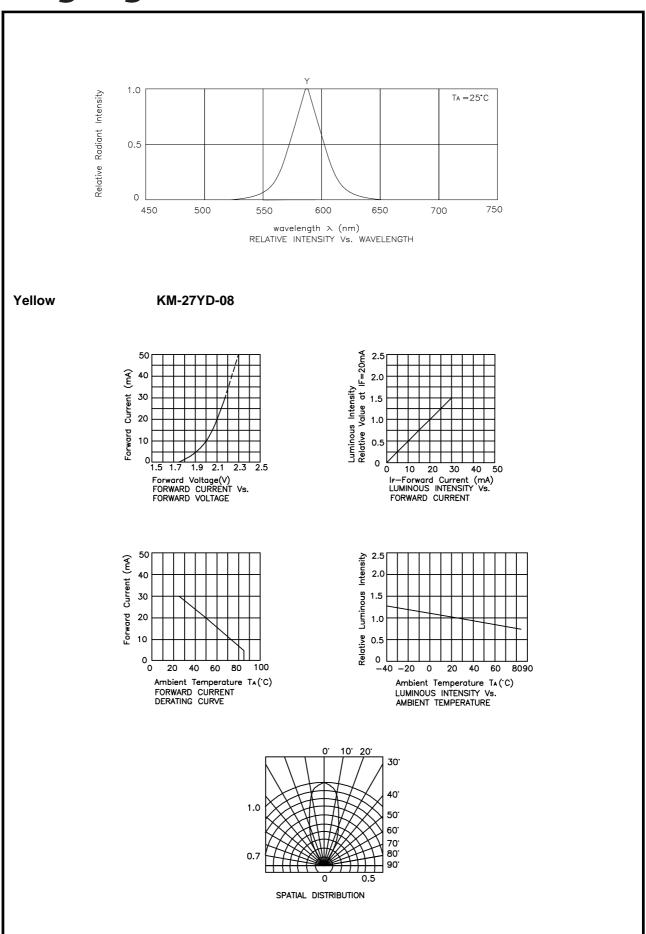
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 $<sup>1. \, \</sup>theta 1/2$  is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.

<sup>1. 1/10</sup> Duty Cycle, 0.1ms Pulse Width.

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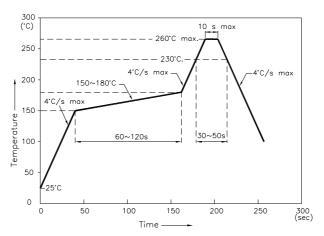


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#### **KM-27YD-08**

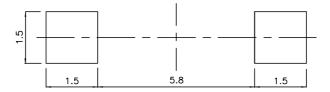
Reflow Soldering Profile For Lead-free SMT Process.



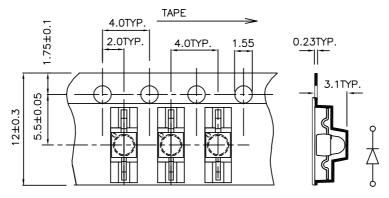
NOTES:

- 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)



# Tape Specifications (Units: mm)



#### Remarks:

If special sorting is required (e.g. binning based on forward voltage, luminous intensity, or wavelength), the typical accuracy of the sorting process is as follows:

- 1. Wavelength: +/-1nm
- 2. Luminous Intensity: +/-15%
- 3. Forward Voltage: +/-0.1V

Note: Accuracy may depend on the sorting parameters.

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