

## **SOT-23 SURFACE MOUNT LED LAMP**

Part Number: KM-23SYD-F Super Bright Yellow

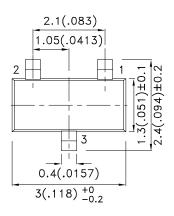
### **Features**

- SOT-23 PACKAGE SURFACE MOUNT LED LAMP.
- LOW POWER CONSUMPTION.
- LONG LIFE SOLID STATE RELIABILITY.
- PACKAGE: 2000PCS / REEL.
- MOISTURE SENSITIVITY LEVEL: LEVEL 3.
- RoHS COMPLIANT.

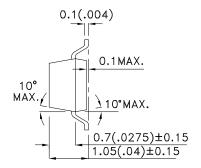
## Description

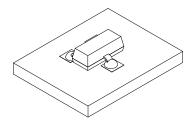
The Super Bright Yellow device is made with InGaAIP (on GaAs substrate) light emitting diode chip.

## **Package Dimensions**



- 1 ANODE
- 2 N.C.
- 3 CATHODE





### Notes:

- All dimensions are in millimeters (inches).
   Tolerance is ±0.25(0.01") unless otherwise noted.
- 3. Lead spacing is measured where the lead emerge from the package.
- 4. Specifications are subject to change without 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.	Dice	Lens Type	lv (mcd) [2] @ 20mA		Viewing Angle [1]
		,	Min.	Тур.	201/2
KM-23SYD-F	Super Bright Yellow (InGaAIP)	YELLOW DIFFUSED	50	100	140°

- 1. 01/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline 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	Super Bright Yellow	590		nm	IF=20mA
λD [1]	Dominant Wavelength	Super Bright Yellow	588		nm	IF=20mA
Δλ1/2	Spectral Line Half-width	Super Bright Yellow	28		nm	IF=20mA
С	Capacitance	Super Bright Yellow	25		pF	VF=0V;f=1MHz
VF [2]	Forward Voltage	Super Bright Yellow	2	2.5	V	IF=20mA
lR	Reverse Current	Super Bright Yellow		10	uA	V <sub>R</sub> =5V

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

## Absolute Maximum Ratings at TA=25°C

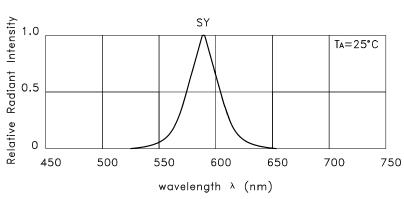
Parameter	Super Bright Yellow	Units		
Power dissipation	75	mW		
DC Forward Current	30	mA		
Peak Forward Current [1]	150	mA		
Reverse Voltage	5	V		
Operating Temperature	-40°C To +85°C			
Storage Temperature	-40°C To +85°C			

## Note:

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

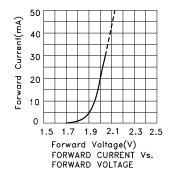
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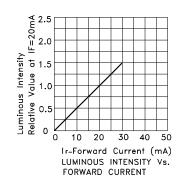
## **Kingbright**

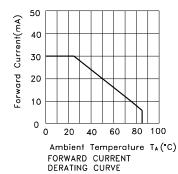


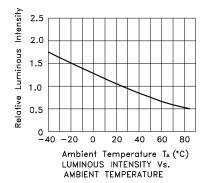
RELATIVE INTENSITY Vs. WAVELENGTH

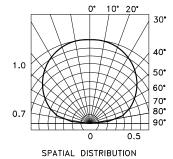
Super Bright Yellow KM-23SYD-F











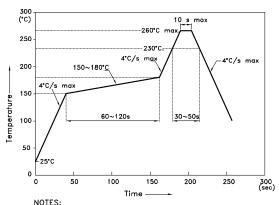
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## KM-23SYD-F

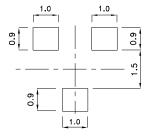
Reflow Soldering Profile For Lead-free SMT Process.



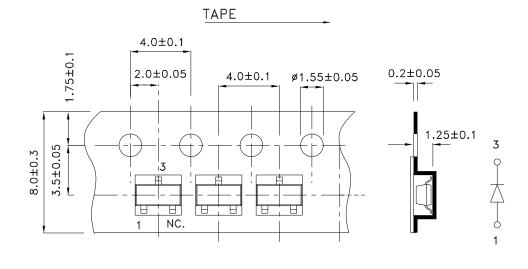
- NOTES:

  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 Specifications** (Units: mm)



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