

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

Part Number: KM-23YD Yellow

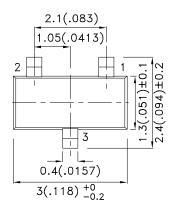
### **Features**

- 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.

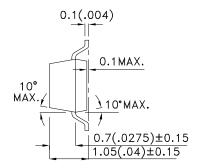
### Description

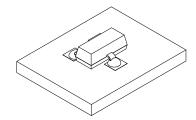
The Yellow source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Yellow Light Emitting Diode.

# **Package Dimensions**



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





- 1. All dimensions are in millimeters (inches).
- 2. 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-23YD	Yellow (GaAsP/GaP)	YELLOW DIFFUSED	1.6	5	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.	Тур. Мах.		Test Conditions	
λpeak	Peak Wavelength	Yellow	590		nm	IF=20mA	
λD [1]	Dominant Wavelength	Yellow	588		nm	IF=20mA	
Δλ1/2	Spectral Line Half-width	Yellow	35		nm	IF=20mA	
С	Capacitance	Yellow	20		pF	V <sub>F</sub> =0V;f=1MHz	
VF [2]	Forward Voltage	Yellow	2.1	2.5	V	IF=20mA	
lR	Reverse Current	Yellow		10	uA	V <sub>R</sub> =5V	

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

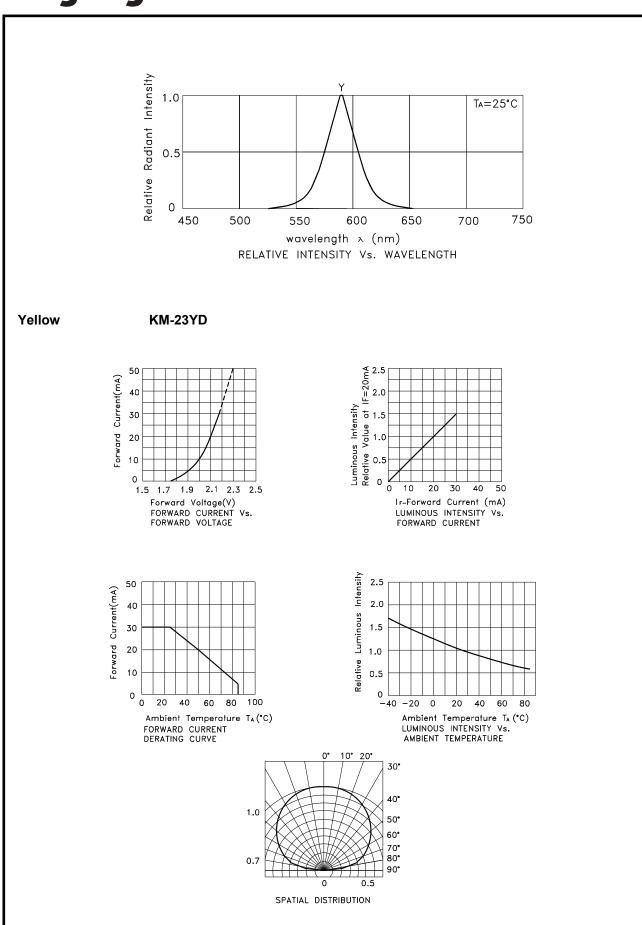
### Absolute Maximum Ratings at TA=25°C

Parameter	Yellow	Units	
Power dissipation	75	mW	
DC Forward Current	30	mA	
Peak Forward Current [1]	140	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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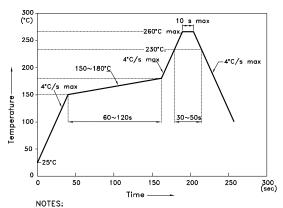
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## KM-23YD

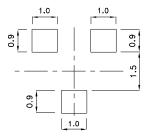
Reflow Soldering Profile For Lead-free SMT Process.



- 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)

**TAPE** 4.0±0.1  $2.0 \pm 0.05$  $0.2 \pm 0.05$ 4.0±0.1 ø1.55±0.05 1.25±0.1  $8.0\pm0.3$ 2 N.C.

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