

#### SOT-23 SURFACE MOUNT LED LAMP

KM-23ID-F HIGH EFFICIENCY RED

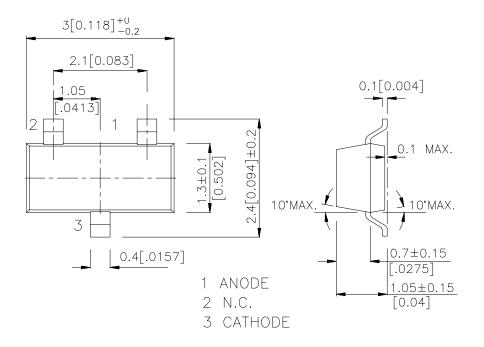
#### **Features**

- •SOT-23 PACKAGE SURFACE MOUNT LED LAMP.
- •LOW POWER CONSUMPTION.
- •LONG LIFE SOLID STATE RELIABILITY.
- •PACKAGE: 2000PCS/REEL.

### **Description**

The High Efficiency Red source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Orange Light Emitting Diode.

### **Package Dimensions**



#### Notes:

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

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### **Selection Guide**

Part No.	Dice	Lens Type	<b>lv (mcd)</b> @ 20 mA		<b>Viewing</b> Angle
		,,	Min.	Тур.	201/2
KM-23ID-F	HIGH EFFICIENCY RED (GaAsP/GaP)	RED DIFFUSED	4	15	140°

#### Note:

# Electrical / Optical Characteristics at T<sub>A</sub>=25°C

Symbol	Parameter	Device	Тур.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	High Efficiency Red	627		nm	IF=20mA
λD	Dominate Wavelength	High Efficiency Red	625		nm	IF=20mA
Δλ1/2	Spectral Line Half-width	High Efficiency Red	45		nm	IF=20mA
С	Capacitance	High Efficiency Red	15		pF	Vr=0V;f=1MHz
VF	Forward Voltage	High Efficiency Red	2.0	2.5	V	IF=20mA
IR	Reverse Current	High Efficiency Red		10	uA	VR = 5V

## Absolute Maximum Ratings at T<sub>A</sub>=25°C

Parameter	High Efficiency Red	Units
Power dissipation	105	mW
DC Forward Current	30	mA
Peak Forward Current [1]	160	mA
Reverse Voltage	5	V
Operating/Storage Temperature	-40°C To +85°C	

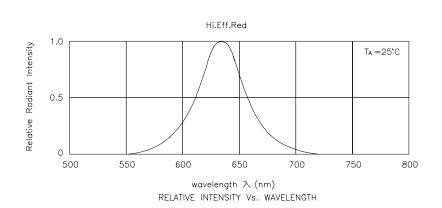
#### Note

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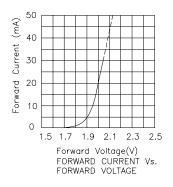
<sup>1.</sup>  $\theta$ 1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.

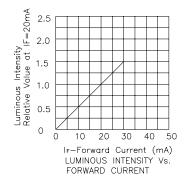
<sup>1. 1/10</sup> Duty Cycle, 0.1ms Pulse Width.

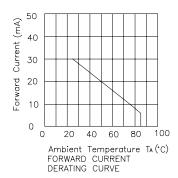
# Kingbright

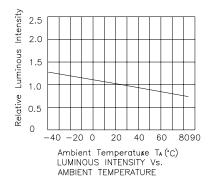


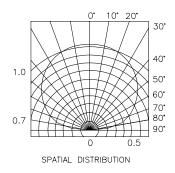
High Efficiency Red KM-23ID-F











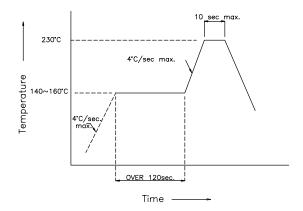
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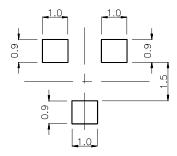
# Kingbright

## KM-23ID-F SMT Reflow Soldering Instructions

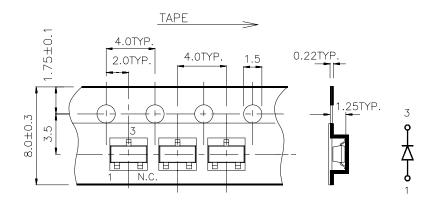
Number of reflow process shall be less than 2 times and cooling process to normal temperature is required between first and second soldering process.



# Recommended Soldering Pattern (Units:mm)



# Tape Specifications (Units:mm)



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