







**Features** 

ATTENTION OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC DISCHARGE SENSITIVE DEVICES



# Applications

Small size, Flexible design



## **Package Dimensions**

Long operating life

Low voltage DC operated

Lambertian radiation pattern

Cool beam, safe to the touch

Superior ESD protection

High heat dissipation efficiency

High efficiency



Dimension: 3.45mmx3.45mmx1.9mm





# **Recommended Soldering**



#### Notes :

1. All dimension units are millimeters.

2. All dimension tolerance is ±0.2mm unless otherwise noted.





## **Radiation Pattern**





Typical Optical/ Electrical Characteristics @T<sub>a</sub>=25°C

Ta=25°C

Symbol	ltem	Min.	Тур.	Max.	Units	Test Conditions
ΦV	Luminous Flux	0.2	0.4		lm	IF=700mA
Фе	Radiation Power		450		mW	IF=700mA
VF	Forward Voltage [1]	1.8		2.4	V	IF=700mA
$\lambda_{P}$	peak wavelength	735		745	nm	IF=700mA
20 <sub>1/2</sub>	50% power angle		130		deg	IF=700mA
IR	Reverse Current		_	30	uA	VR = 5V

#### Notes:

1. Tolerance of measurement of forward voltage  $\pm 0.1V$   $\sim$  peak Wavelength  $\pm 2.0$  nm  $\sim$  luminous flux  $\pm 5\%$ 

## **Absolute Maximum Ratings**

TA=25°C

Item	Symbol	Absolute Maximum Rating	Units	
Power dissipation[1]	Pd	3	W	
DC Forward Current[1]	I <sub>F</sub>	700	mA	
Peak Forward Current	I⊧p	800	mA	
Reverse Voltage[1]	V <sub>R</sub>	5	V	
Operating Temperature	Topr	-20°C To +65°C		
Storage Temperature	Tstg	0C To +40°C		

Note:

1.1/10 Duty Cycle,0.1ms Pulse Width.

2.The temperature of Aluminum PCB do not exceed  $55^\circ\!\mathbb{C}_{\,\cdot}$ 













Soldering:



Reflow soldering

Caution:

1.wave peak and soak-stannum soldering etc.is not suitable for this products.

2.reflow solding should not be done more than one time

3.The peak reflow temperature is 260 +10  $^\circ$ C, not more than 40 seconds

4.Repairing should not be done after the LEDs have been soldered. When repairing is un avoidable, suitable tools have to be used.

5.when solding, do not put stress on the LEDs during heating.

6.After soldering, do not warp the LED.do not stack PCBS or assemblies cantaing K Series LEDS so that anything rests on the LED lens.

#### Test

1.Drive IFP Conditions : Pulse Width≤10msec duty≤1/10.

2.All high power emitter LED products mounted on aluminum metal-core printed circuit board, can be lighted directly, but we do not recommend lighting the high power products for more than 5 seconds without a appropriate heat dissipation equipment.





# Label

- ΦV: Luminous Flux rank
- VF: Forward voltage rank
- WP: Peak Wave Length
- LOT.NO:Lot Number

# Tape Specifications(Units:mm)











Reel: 2000pcs







5 Inner **B**ox/Outer Box: 50000pcs 5Bags/Inner **b**ox:10000pcs



Outer Box50000pcs





## Precaution for use

#### 1.Storage

To avoid the moisture penetration ,we recommend storing LEDs in a dry box (or a desiccator) with a desiccant. The recommended conditions are temperature 5 to 30 degrees Centigrade. Humidity 60% maximum.

2. Precaution after opening packing

2.1. Soldering should be done right after opening the package (within 24Hrs).

2.2.Keeping of a fraction

-Sealing

-Temperature: 5~30; Humidity: less than 30 °

2.3.If the package has been opened than 1 week or the color of desiccant changed, components should be dried for 10-12 Hrs at  $60\pm5^{\circ}$ C.

3.Any mechanical force or any excess vibration shall not be accepted to apply during cooling process to normal temperature after soldering.

4. Please avoid rapid cooling after soldering.

5.Components should not be mounted on warped direction of PCB.

6. This device should not be used in any fluid such as water, oil ,organic solvent etc. When washing is required, Isopropyl Alcohol should be used.

7. Avoid touching Lens parts especially by sharp tools such as pincette.

8.Please do not force over 1000g impact or pressure diagonally on the silicone lens. It will cause fatal damage on this product.

9.Please do not cover the silicone resin of the LEDs with other resin.

10.Do not use metal suction nozzle, rubber or silica gel suction nozzle is recommended.





OK

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Note:

 $1.2\theta_{1/2}$  is the angle from optical centerline where the luminous flux is 1/2 the optical centerline value. 2. The value only for reference.





13.Do not stack PCBs or assemblies containing the LEDs so that anything rests on the LED lens. Force applied to the LED lens may result in the lens being knocked off. PCBs or assemblies containing the LEDs should be stacked in a way to allow at least 2 cm clearance above the LED lens.











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