

## 5mm LED lamp

## LK383SUWC/

### ■ Description

The **LK383SUWC**/series are **InGaN** Light Emitting Diode, molded in water clear plastic Packages.

### ■ Features

- Popular diameter package .
- Choice of various viewing angles.
- Available on tape and reel.
- Reliable and robust.

### ■ Applications

- TV set.
- Monitor.
- Telephone.
- Computer.

### ■ Absolute Maximum Ratings (at Ta=25°C)

Parameter	Symbol	Maximum Rating	Unit
Power Dissipation	$P_D$	500	mW
Forward Current	$I_F$	100	mA
Peak Forward Current (Pulse width $\leq 100 \mu S$ duty $\leq 1/10$ )	$I_{FP}$	400	mA
Reverse Voltage	$V_R$	5	V
Operation Temperature	$T_{opr}$	-25 ~ +85	°C
Storage Temperature	$T_{stg}$	-45 ~ +100	°C
Junction Temperature	$T_j$	105	°C
Electrostatic Discharge	ESD	150	V
Lead Soldering Temperature (2mm from the case $t \leq 5S$ )	$T_{sol}$	260	°C

### ■ Basic Characteristics

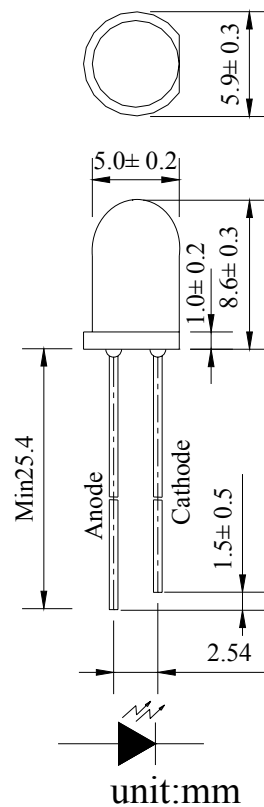
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 $T_a=25^{\circ}\text{C}$ 

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Voltage	$V_F$	$I_F=100\text{mA}$	--	3.2	4.0	V
Reverse Current	$I_R$	$V_R=5\text{V}$	--		50	$\mu\text{A}$
Luminous Intensity	$I_V$	$I_F=100\text{mA}$	15000	25000		mcd
50% View Angle	$2\varphi_{1/2}$	$I_F=100\text{mA}$	--	8		deg
Chromaticity Coordinates	X	$I_F=100\text{mA}$	---	0.31	---	---
	Y		---	0.32	---	---

## ■ Package Dimensions



■ Typical Electrical / Optical / Characteristics Curves

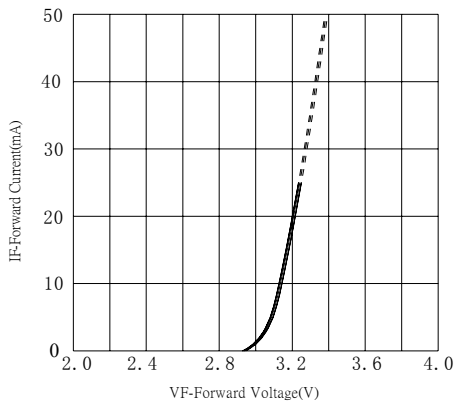


Fig.1 Forward Current vs. Forward Voltage

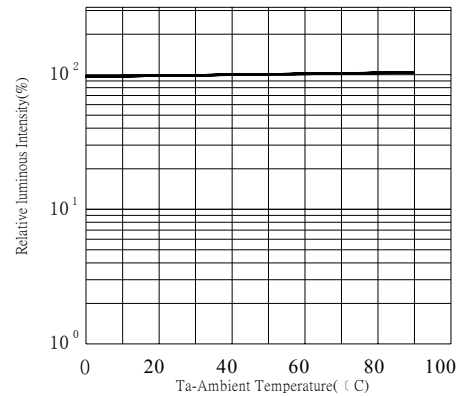


Fig.2 Relative luminous Intensity vs. Ambient Temperature

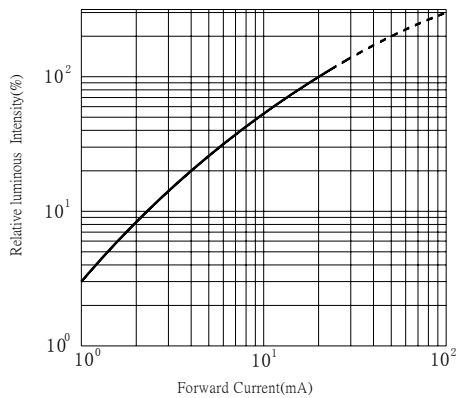


Fig.3 Relative luminous Intensity vs. Forward Current

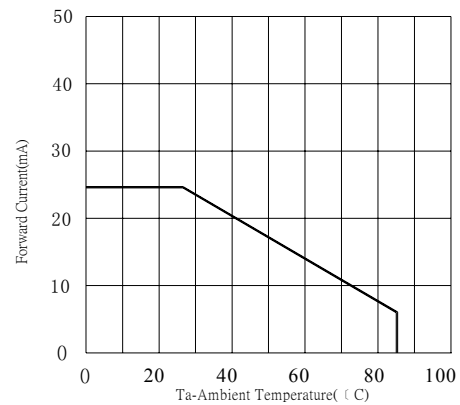


Fig.4 Forward Current vs. Ambient Temperature

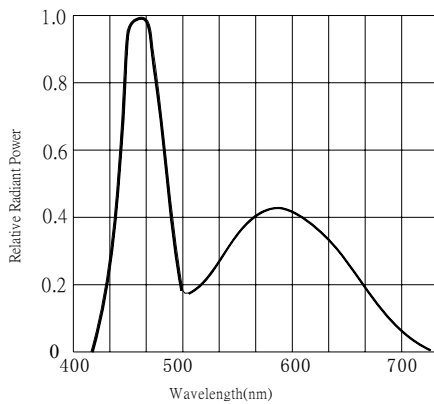


Fig.5 Relative Radiant Power vs. Wavelength

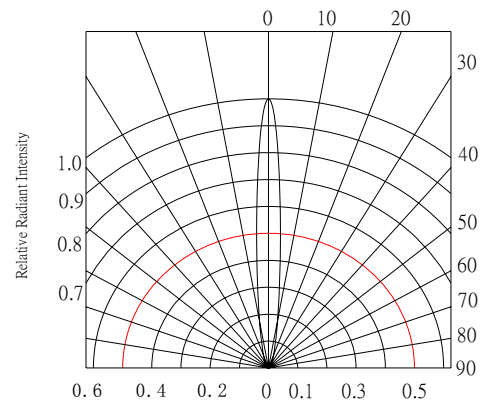


Fig.6 Relative Radiant Intensity vs. Angular Displacement

### ■ Chromaticity Coordinates Specifications for Bin Grading

Rank	Chromaticity Coordinates				
A	X	0.220	0.220	0.260	0.260
	Y	0.220	0.280	0.310	0.250
B	X	0.260	0.260	0.290	0.290
	Y	0.250	0.310	0.330	0.270
C	X	0.290	0.290	0.320	0.320
	Y	0.270	0.330	0.350	0.290
D	X	0.320	0.320	0.360	0.360
	Y	0.290	0.350	0.380	0.320
Tolerance	$X \pm 0.01$		$Y \pm 0.01$		

### ■ CIE Chromaticity Diagram

