

# Latticepower blue chip LP-SI08B07B-AL[W<sub>x</sub>V<sub>y</sub>I<sub>z</sub>]

## Data Sheet

### ■ FEATURES

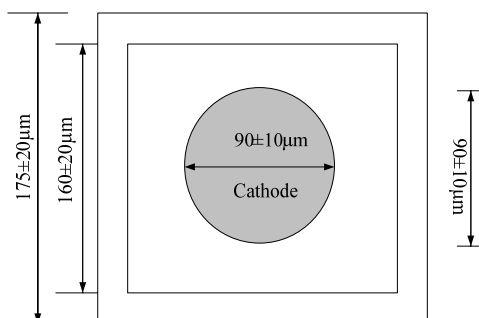
- Single Wire Bond Structure
- All samples are 100% tested and sorted
- High anti-ESD level

### ■ APPLICATIONS

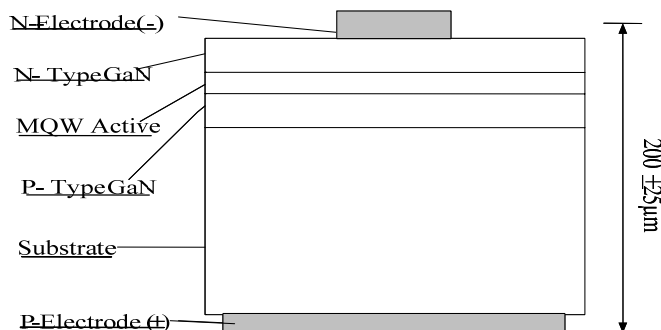
- Indoor and outdoor notice boards and billboards
- General Illumination

### ■ CHIP DESCRIPTION

Top View



Die Cross Section



## OPTICAL AND ELECTRICAL CHARACTERISTICS ( Ta = 25 °C )

Item	Symbol	Condition		Min	Typ	Max	Unit
Forward Voltage	V <sub>f</sub>	I <sub>f</sub> =20mA	V	—	3.3	3.6	V
Reverse Current	I <sub>R</sub>	V <sub>r</sub> =5V		—	—	1	μ A
Spectral half-width	Δ λ	I <sub>f</sub> =20mA		—	25	—	nm

### STANDARD BINS FOR SI08B07B

LED chips are sorted to the intensity and dominant wavelength bins shown. A sorted die sheet contains die from only one bin. All intensity and dominant wavelength values shown and specified are at I<sub>f</sub> = 20 mA.

Intensity \ Wavelength		I1	I2	I3
		W1	465-467.5nm	50-60mcd
W2	467.5-470nm	60-75mcd	75-90mcd	90-105mcd
W3	470-472.5nm	70-85mcd	85-100mcd	100-120mcd
W4	472.5-475nm	75-90mcd	90-105mcd	105-125mcd

\* All measurements are done with Latticepower's standard testing equipment.

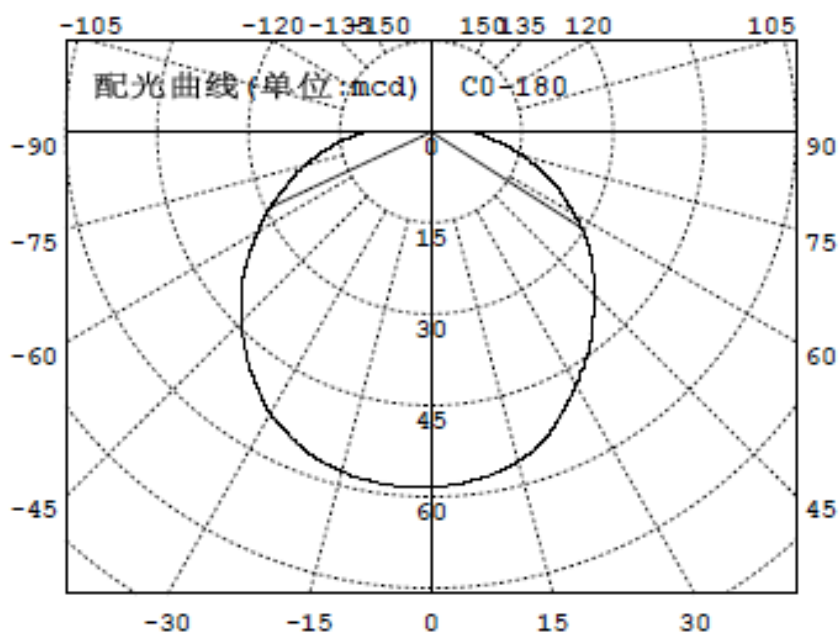
## ■ ABSOLUTE MAXIMUM RATINGS ( Ta = 25 °C )

Item	Symbol	Maximum Rating	Unit
DC Forward Current	$I_F$	30	mA
Pulse Forward Current (1/10 duty cycle @ 1 kHz)	$I_{FP}$	100	mA
Reverse Voltage	$V_R$	5	V
Operating Temperature	$T_{OPR}$	-30 to +85	°C
Storage Temperature	$T_{STG}$	-40--+100	°C

\*The above ratings were determined using a T-1 3/4 package .

## ■ Radiation Pattern

This is a representative radiation pattern for the Si08B07B-AI LED product.  
Actual patterns will vary slightly for each chip.

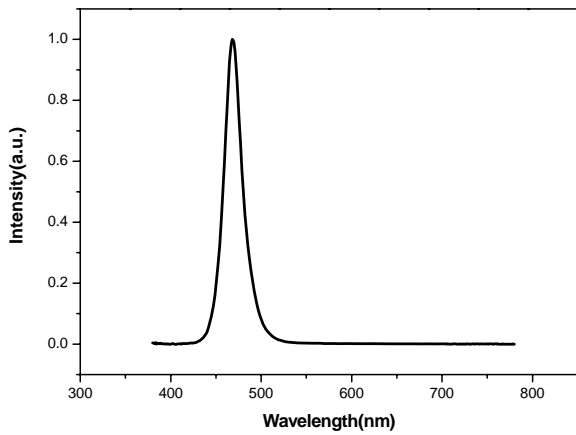


\*BARE CHIP If=20mA

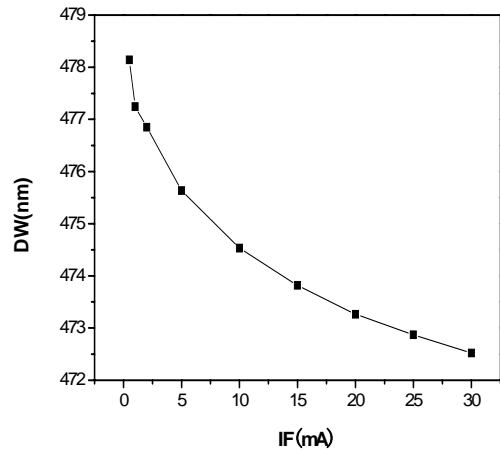
# Characteristic Curves

These are representative measurements for the SI08B07B LED product. Actual curves will vary slightly for the various radiant flux and dominant wavelength bins.

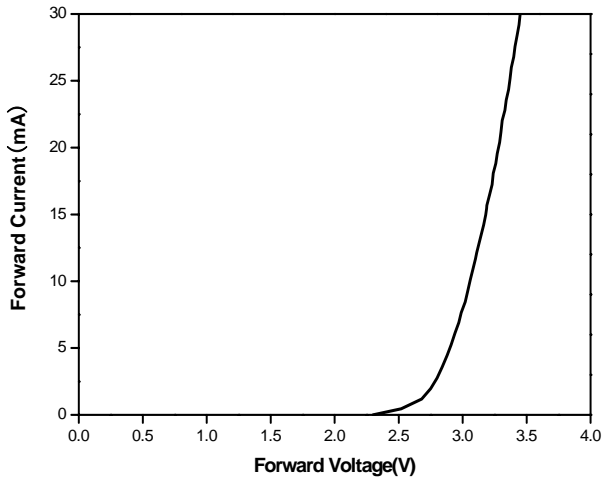
### Intensity vs Peak Wavelength



### Wavelength Shift vs Forward Current



### Forward Current vs Forward Voltage



### RF vs Forward Current

