

### Features

- LOW POWER CONSUMPTION.
- SOLID STATE BLUE LIGHT SOURCE.
- SUITABLE FOR FULL COLOR LED DISPLAYS AND INDICATORS DIAGNOSTIC/ANALYTICAL EQUIPMENT.

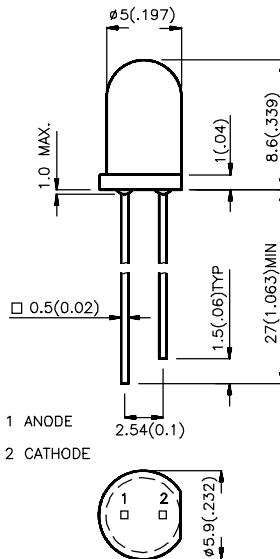
L7113NBx BLUE

L7113PBx BLUE

### Package Dimensions

### Description

The Blue source color devices are made with InGaN on SiC Light Emitting Diode.



#### 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 subjected to change without notice.

### Selection Guide

Part No.	Dice	Case-Color	Iv (mcd) @ 20 mA		Viewing Angle
			Min.	Typ.	
L7113NBD	Blue (InGaN)	BLUE DIFFUSED	50	75	20°
L7113NBT	Blue (InGaN)	BLUE TRANSPARENT	100	200	16°
L7113NBC	Blue (InGaN)	WATER CLEAR	200	300	16°
L7113PBD	Blue (InGaN)	BLUE DIFFUSED	300	400	20°
L7113PBT	Blue (InGaN)	BLUE TRANSPARENT	300	450	16°
L7113PBC	Blue (InGaN)	WATER CLEAR	500	1000	16°

#### Note:

1.  $01/2$  is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.

## Electrical / Optical Characteristics at $T_A=25^\circ C$

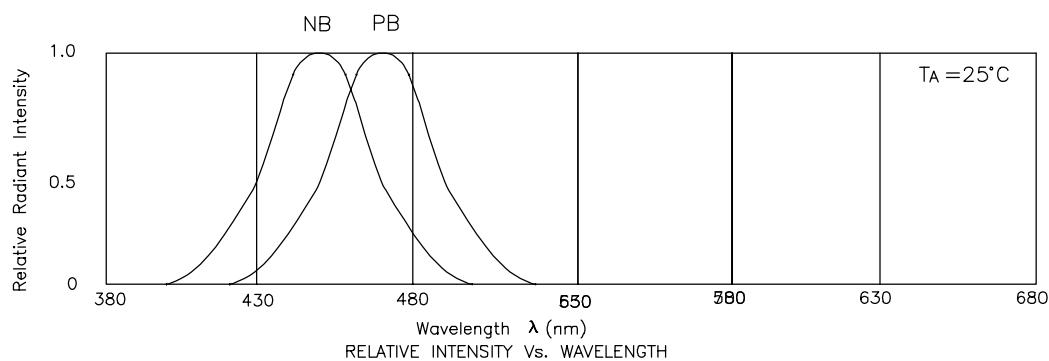
Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
$\lambda_{peak}$	Peak Wavelength	Blue (NB) Blue (PB)	445 468		nm	IF=20mA
$\Delta\lambda_{1/2}$	Spectral Line Halfwidth	Blue (NB) Blue (PB)	20 26		nm	IF=20mA
C	Capacitance	Blue (NB) Blue (PB)	110 110		pF	VF=0V;f=1MHz
$V_F$	Forward Voltage	Blue (NB) Blue (PB)	3.7 3.5	4.0 4.0	V	IF=20mA
$I_R$	Reverse Current	All		10	uA	VR = 5V

## Absolute Maximum Ratings at $T_A=25^\circ C$

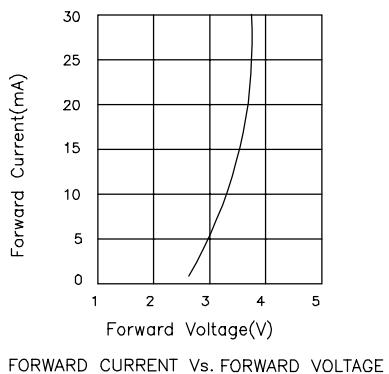
Parameter	Blue (NB)	Blue (PB)	Units
Power dissipation	120	102	mW
DC Forward Current	30	30	mA
Peak Forward Current [1]	100	100	mA
Reverse Voltage	5	5	V
Operation Temperature		-20°C To +80°C	
Storage Temperature		-30°C To +85°C	
Lead Soldering Temperature [2]		260°C For 5 Seconds	

Notes:

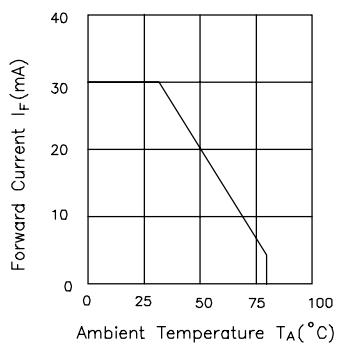
1. 1/10 Duty Cycle, 0.1ms Pulse Width.
2. 4mm below package base.



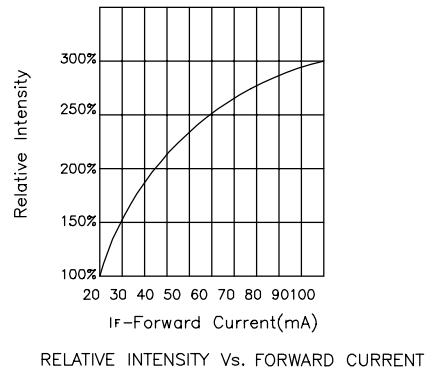
## Blue L7113NBD,L7113NBC,L7113NBT



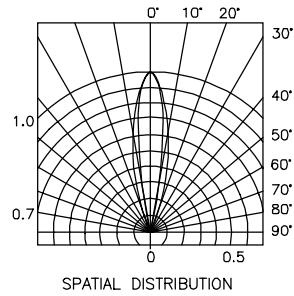
FORWARD CURRENT Vs. FORWARD VOLTAGE



FORWARD CURRENT DERATING CURVE

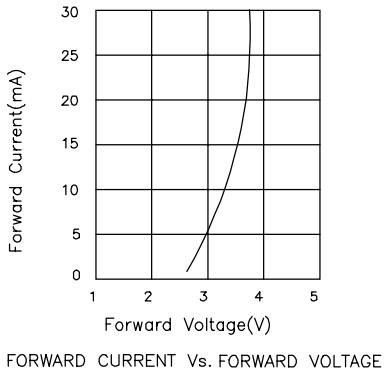


RELATIVE INTENSITY Vs. FORWARD CURRENT

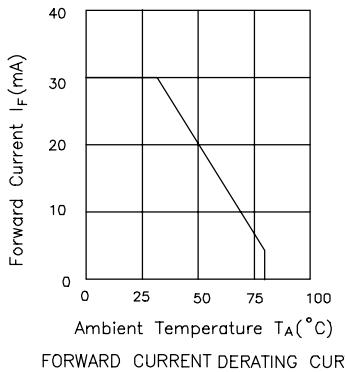


SPATIAL DISTRIBUTION

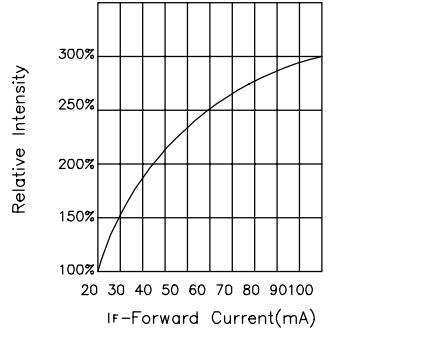
## Blue L7113PBD,L7113PBC,L7113PBT



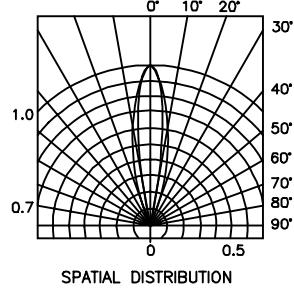
FORWARD CURRENT Vs. FORWARD VOLTAGE



FORWARD CURRENT DERATING CURVE



RELATIVE INTENSITY Vs. FORWARD CURRENT



SPATIAL DISTRIBUTION