

1. Descriptions

The KB1611B46(KLB-11B) is a very small-sized chip LED which makes right angle mounting available.

2. Features

- ◆ Standard SMT Footprint Package (1.6 L×0.55 W×1.15 H [mm])
- ◆ Forward Voltage(V_F) from 2.45 to 3.25V @ Forward Current(I_F)=5mA
- ◆ Operation Temperature from -20°C to +85°C
- ◆ High Luminous Intensity(I_V) is typical 30mcd @ I_F =5mA

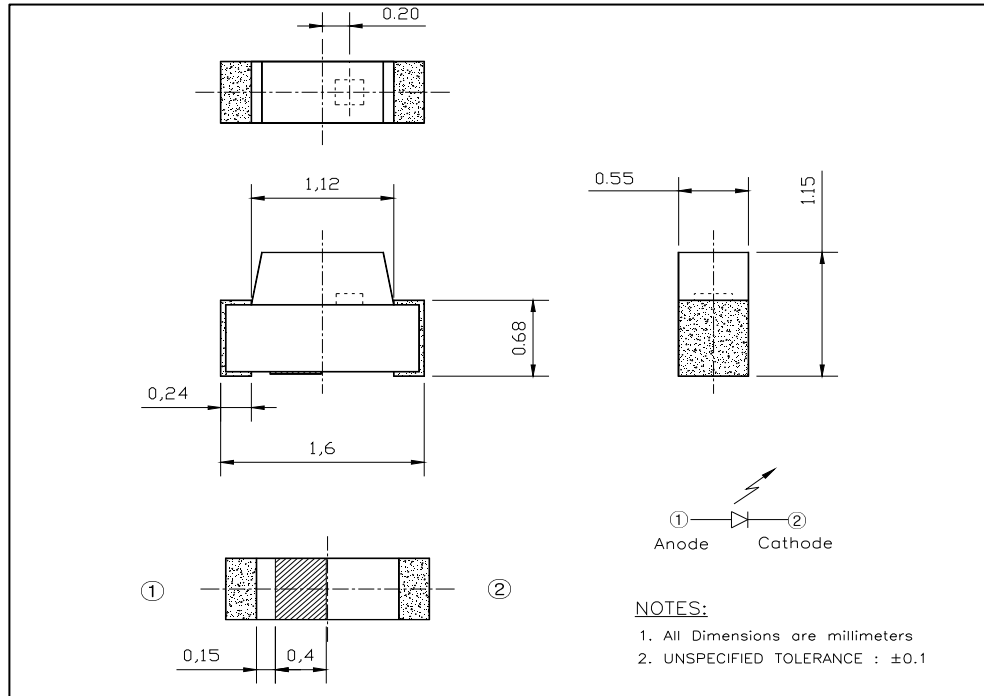
3. Application

- ◆ Cellular Phone Key Pad Back Light
- ◆ Indoor Display Modules
- ◆ Indicators for Electrical Appliances

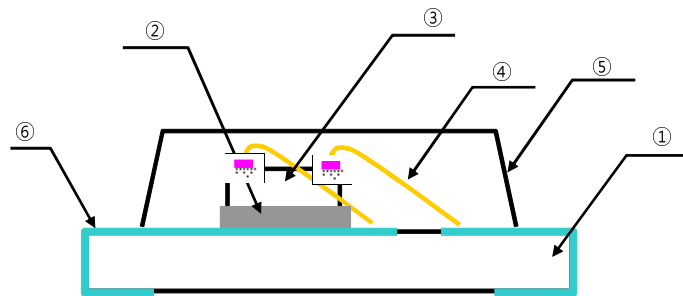
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When using this product, would you please refer to the latest specifications.

4. Outline Dimensions and Material Descriptions

◆ **Outline Dimensions**



◆ **Material Descriptions**



No.	ITEM	Material
①	PCB	BT Resin
②	Paste	Ag Epoxy
③	LED Chip	InGaN/Al ₂ O ₃
④	Wire	Au
⑤	Encapsulant	Clear Epoxy
⑥	Electrode	Au Plated Cu

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5. Absolute Maximums

ITEM	Symbol	MIN	MAX	Unit	Conditions
Forward Current	I_F	-	20	mA	
Peak Forward Current*	I_{FP}	-	40	mA	
Power Dissipation	P_D	-	66	mW	
Reverse Voltage	V_R	-	5	V	
Operating Temperature	T_{opr}	-20	85	°C	
Storage Temperature	T_{str}	-30	100	°C	
Soldering Temperature	T_{sol}		260	°C	5 Sec

* Remark : Duty Ratio $\leq 1/10$, Pulse Width $\leq 10\text{ms}$

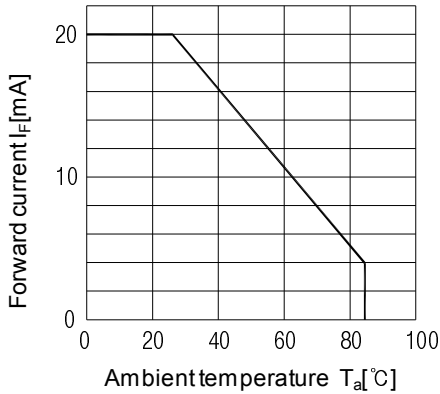
6. Electro-Optical Characteristics ($T_A = 25^\circ\text{C}$)

ITEM	Symbol	MIN	TYP	MAX	Unit	Conditions
Forward Voltage	V_F	2.45	-	3.25	V	$I_F=5\text{mA}$
Intensity	I_V	10	-	50	mcd	$I_F=5\text{mA}$
Dominant Wavelength	W_D	465	472	480	nm	$I_F=5\text{mA}$
Reverse Current	I_R	-	-	10	μA	$V_R=5\text{V}$
FWHM	$\Delta\lambda$	-	25	-	nm	$I_F=5\text{mA}$
Half angle	$\Delta\theta$	-	120	-	deg	$I_F=5\text{mA}$

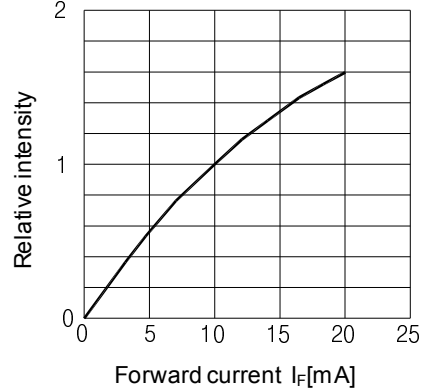
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8. Characteristic Graphs

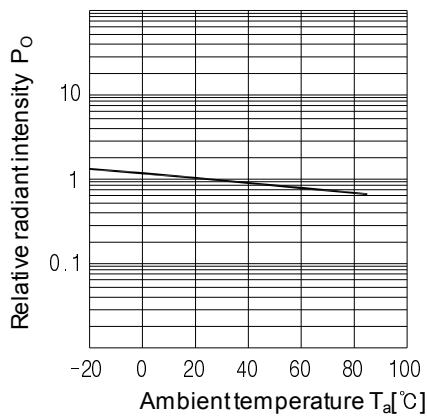
Forward current vs. Ambient temperature



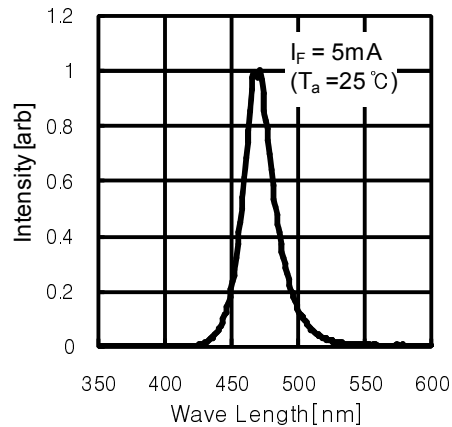
Radiant Intensity vs. Forward current



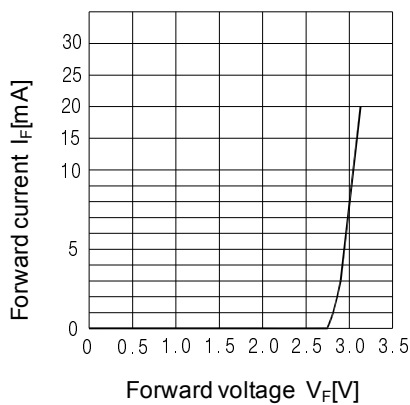
Relative radiant intensity vs. Ambient temperature



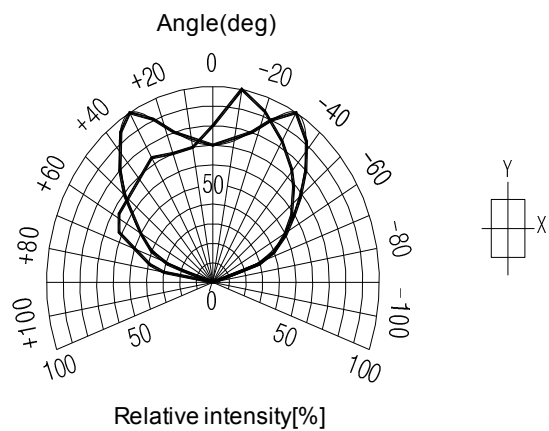
Relative intensity vs. Wavelength



Forward current vs. Forward voltage



Radiant Pattern



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