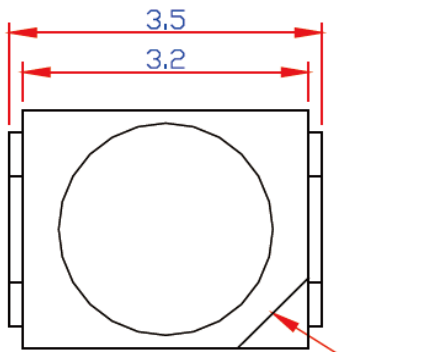


SURFACE MOUNT LED LAMPS

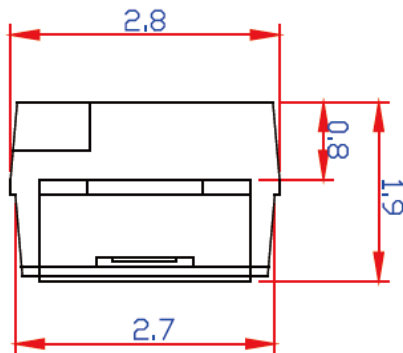
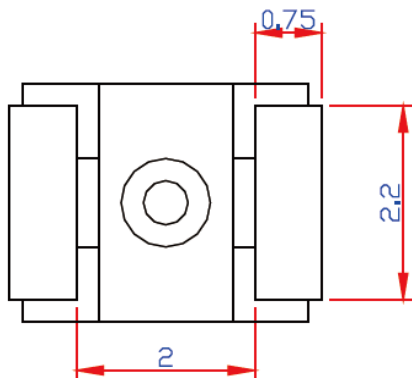
3528 Package Power White Surface Mount Device

Part Number: 67-21UW2C-242

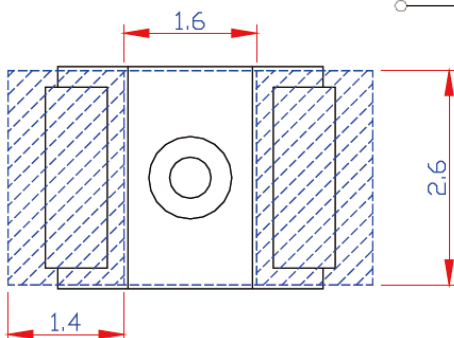
Package outlines & Re-flow Profile



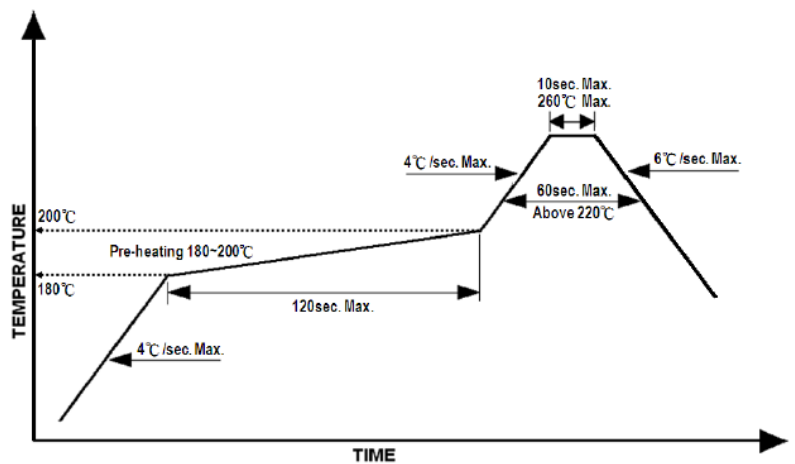
Polarity mark



Solder Pad



Reflow Temp/Time



Soldering iron

Basic spec is $\leq 5\text{sec}$ when 260°C . If temperature is higher, time should be shorter ($+10^\circ\text{C} \rightarrow -1\text{sec}$). Power dissipation of iron should be smaller than 15W, and temperatures should be controllable. Surface temperature of the device should be under 230°C .

ITEM	MATERIALS
Resin (mold)	Epoxy
Lens color	Yellow Diffused
Printed circuit board	BT
Emitted color	Cool White
Material	InGaN

NOTES:

- All dimensions are in millimeters (inches);
- Tolerances are $\pm 0.1\text{mm}$ (0.004inch) unless otherwise noted.
- Polarity referring onto the cathode mark is reversed on the red.

**A-BRIGHT INDUSTRIAL CO., LTD.****SURFACE MOUNT LED LAMPS**

Part Number: 67-21UW2C-242

ELECTRO-OPTICAL CHARACTERISTICS**(T_A=25°C)**

Parameter	Test Condition	Symbol	Value			Unit
			MIN.	TYP.	MAX.	
Viewing angle at 50% I _v	I _F =20mA	2θ 1/2	120			Deg
Forward voltage	I _F =20mA	V _F	---	3.2	---	V
Color Temperature	I _F =20mA	CCT	5000	---	10000	K
Luminous Intensity	I _F =20mA	I _v	---	2600	---	mcd
Pulse Forward Current (Pulse Width ≤ 10msec, and duty ≤ 1/10)		I _{FP}	100			mA

Absolute maximum ratings**(T_A=25°C)**

Parameter	Symbol	Value	Unit
Forward current	I _F	30	mA
Reverse voltage	V _R	5	V
Thermal Resistance	---	180	°C/W
ESD Sensitivity	V _B	2000	V
Color Rendering Index	CRI	70	---
Operating temperature range	Top	-40 ~+85	°C
Storage temperature range	Tstg	-40 ~+125	°C



A-BRIGHT INDUSTRIAL CO., LTD.

SURFACE MOUNT LED LAMPS

Part Number: 67-21UW2C-242

Bin Code

Luminous Flux Characteristic

Luminous Flux Characteristics, $I_f=20\text{mA}$ and $T_j=25^\circ\text{C}$

Color	Group	Min Luminous Flux(lm)	Max Luminous Flux(lm)	Typ. Luminous Intensity (mcd)	Forward Current(mA)
Cool White	23	6.4	6.7	2,600	20
	24	6.7	7.0		
	25	7.0	7.3		
	26	7.3	7.5		
	27	7.5	7.8		
	28	7.8	8.1		
	29	8.1	8.7		

Voltage Bin Structure

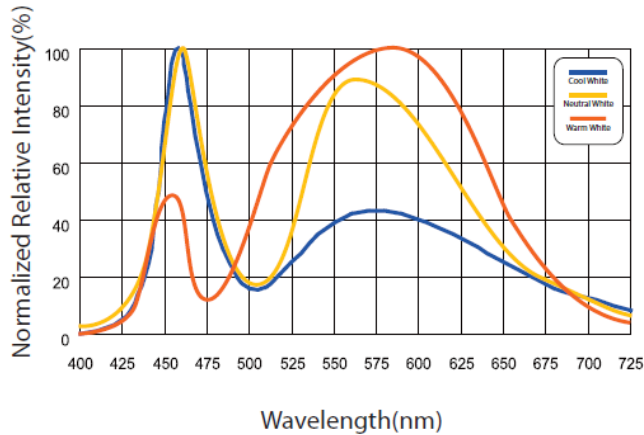
Group	Min Voltage (V)	Max Voltage (V)
VA1	2.8	2.9
VB1	2.9	3.0
VC1	3.0	3.1
VA2	3.1	3.2
VB2	3.2	3.3
VC2	3.3	3.4
VA3	3.4	3.5
VB3	3.5	3.6

Note:

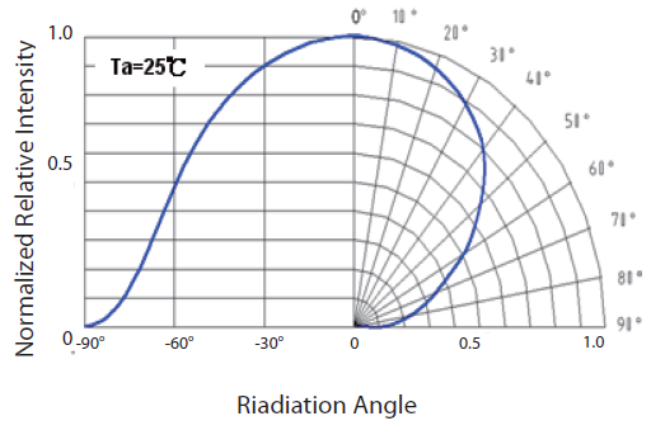
Forward voltage measurement allowance is $\pm 0.1\text{V}$.

SURFACE MOUNT LED LAMPS

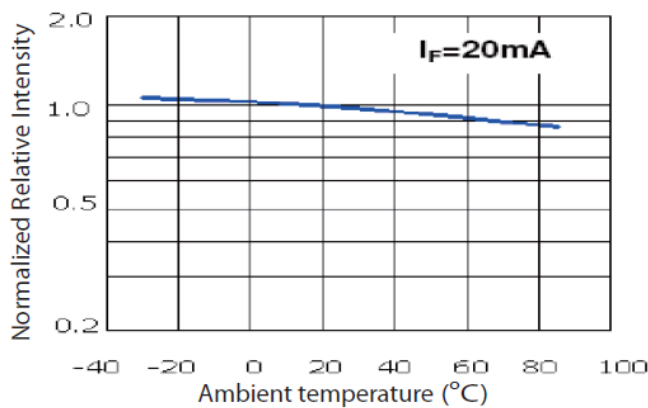
Part Number: 67-21UW2C-242

Typical Electro-Optical Characteristic Curves**Spectrum**

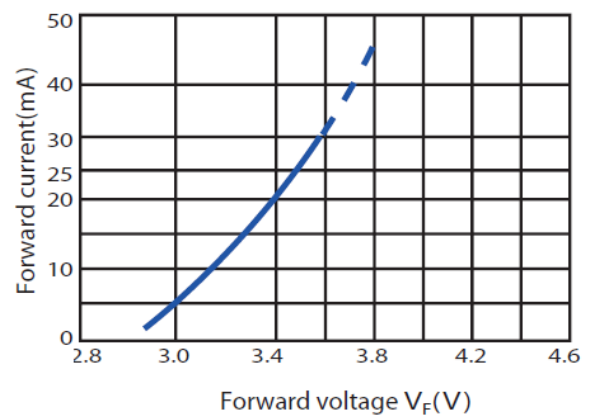
Color Spectrum at typical CCT for PLCC 3528 series

Radiation Diagram

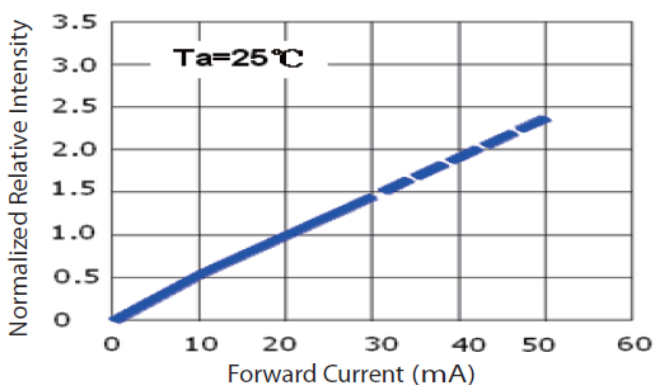
Beam pattern diagram for PLCC 3528 series

Luminous Flux vs. Ambient Temperature

Ambient temperature vs. relative intensity for PLCC 3528 series

Forward Voltage vs. Forward Current

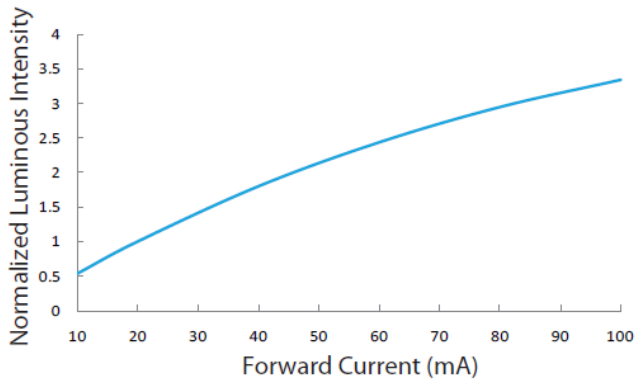
Forward current vs. forward voltage for PLCC 3528 series

Luminous Flux vs. Forward Current

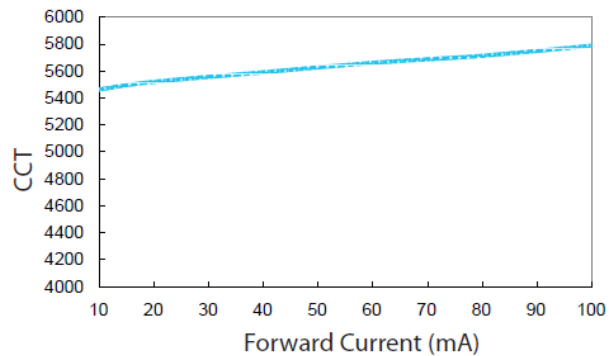
Forward current vs. relative intensity for PLCC 3528 series

SURFACE MOUNT LED LAMPS

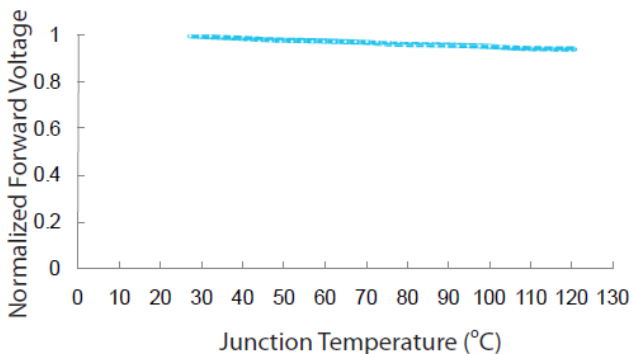
Part Number: 67-21UW2C-242

Typical Electro-Optical Characteristic Curves**Luminous Intensity vs. Forward Current**

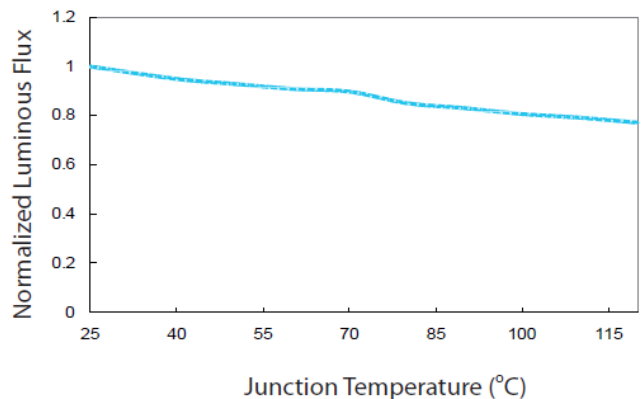
Luminous Intensity vs. Forward Current for PLCC 3528 series

CCT vs. Forward Current

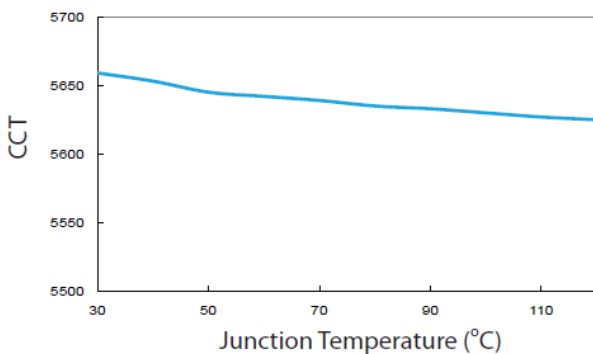
CCT vs. Forward Current for PLCC 3528 series

Forward voltage vs. Junction temperature

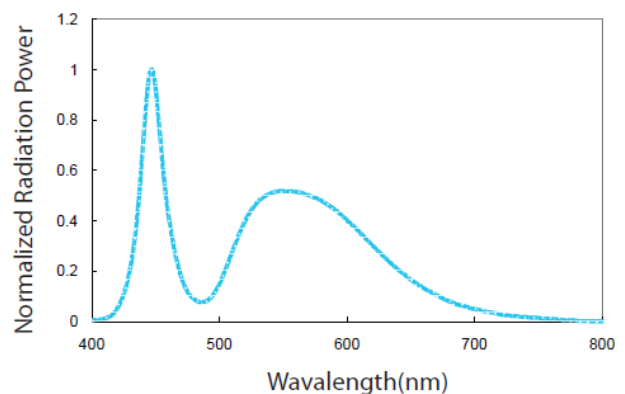
Forward voltage vs. Junction temperature for PLCC 3528 series

Luminous Flux vs. Junction temperature

Luminous Flux vs. Junction temperature for PLCC 3528 series

CCT vs. Junction temperature

CCT vs. Junction temperature for PLCC 3528 series

Radiation Power vs. Wavelength

Radiation power vs. Wavelength for PLCC 3528 series

A-BRIGHT A-BRIGHT INDUSTRIAL CO., LTD. SURFACE MOUNT LED LAMPS

Part Number: 67-21UW2C-242

Precautions For Use

1. Over-current proof

Customer must apply resistors for protection, otherwise slight voltage shift will cause big current change (Burn out will happen).

2. Storage

2.1 Do not open moisture proof bag before the products are ready to use.

2.2 Before opening the package, the LEDs should be kept at 30°C or less and 90%RH or less.

2.3 The LEDs should be used within a year.

2.4 After opening the package, the LEDs should be kept at 30°C or less and 70%RH or less.

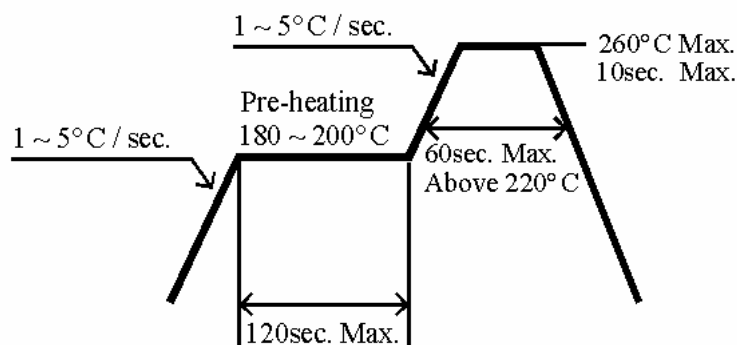
2.5 The LEDs should be used within 168 hours (7 days) after opening the package.

2.6 If the moisture absorbent material (silica gel) has faded away or the LEDs have exceeded the storage time, baking treatment should be performed using the following conditions.

Baking treatment : 60±5°C for 24 hours.

3. Soldering Condition

3.1 Pb-free solder temperature profile



3.2 Reflow soldering should not be done more than two times.

3.3 When soldering, do not put stress on the LEDs during heating.

3.4 After soldering, do not warp the circuit board.

4. Soldering Iron

Each terminal is to go to the tip of soldering iron temperature less than 280°C for 3 seconds within once in less than soldering iron capacity 25W. Leave two seconds and more intervals, and do soldering of each terminal. Be careful because the damage of the product is often started at the time of the hand solder.

