

## SMD ■ Low Power LED 67-21/XK2C-BXXXXXXXXXX/2T



### Features

- PLCC-2 package
- Top view white LED
- High luminous intensity output
- Wide viewing angle
- Pb-free
- RoHS compliant

### Description

The Everlight 67-21 package has high efficacy, high CRI, low power consumption, wide viewing angle and a compact form factor. These features make this package an ideal LED for all lighting applications.

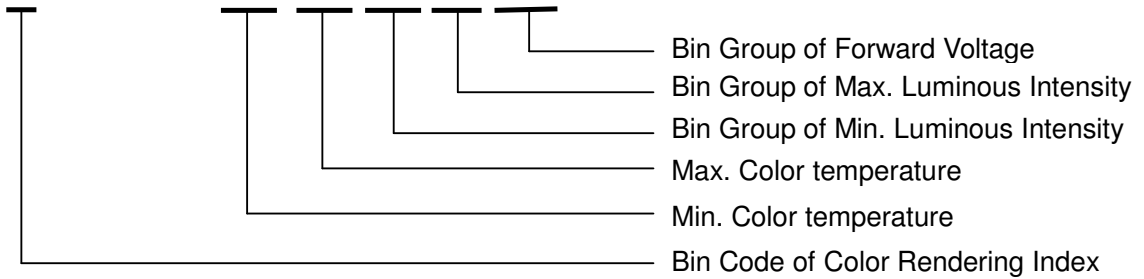
### Applications

- General lighting
- Decorative and Entertainment Lighting
- Indicators
- Illumination
- Switch lights

2w

## Product Number Explanation

**67-21 / X K 2 C - B XX XX XX XX XX / 2T**



## Table of Color Rendering Index

Symbol	Description
M	CRI(Min.) : 60
N	CRI(Min.) : 65
L	CRI(Min.) : 70
Q	CRI(Min.) : 75
K	CRI(Min.) : 80
H	CRI(Min.) : 90

Note:  
Tolerance of Color Rendering Index:  $\pm 2$

Example:  
67-21/LK2C-B45564C6CB2/2T

CRI	70(Min.)
CCT	4500K~5650K
Iv	2200mcd~2600mcd
VF	2.9V~3.6V
I <sub>F</sub>	20mA

## Mass Production list

Product	CRI Min.	CCT(K)	IV(mcd) Min.	IV(mcd) Typ.	IV(mcd) Max.	Φ(lm) Typ.
67-21/LK2C-B56704C6CB2/2T	70	5650K~7000K	2200	2400	2600	7.40
67-21/LK2C-B50634C6CB2/2T	70	5000K~6300K	2200	2400	2600	7.40
67-21/LK2C-B45564C6CB2/2T	70	4500K~5650K	2200	2400	2600	7.40
67-21/LK2C-B38454C6CB2/2T	70	3800K~4500K	2200	2400	2600	7.40
67-21/LK2C-B28322C4CB2/2T	70	2850K~3250K	2000	2200	2400	6.80

## Mass Production list

Product	CRI Min.	CCT(K)	IV(mcd) Min.	IV(mcd) Typ.	IV(mcd) Max.	Φ(lm) Typ.
67-21/QK2C-B56702C4CB2/2T	75	5650K~7000K	2000	2200	2400	6.80
67-21/QK2C-B50632C4CB2/2T	75	5000K~6300K	2000	2200	2400	6.80
67-21/QK2C-B45562C4CB2/2T	75	4500K~5650K	2000	2200	2400	6.80
67-21/QK2C-B38452C4CB2/2T	75	3800K~4500K	2000	2200	2400	6.80
67-21/QK2C-B28322C4CB2/2T	75	2850K~3250K	2000	2200	2400	6.80

Note:

1. Tolerance of Luminous flux:  $\pm 11\%$ .
2. Lm (Typ.) value just for reference.

## Device Selection Guide

Chip Materials	Emitted Color	Resin Color
InGaN	Cool White Neutral White Warm White	Water Clear

## Absolute Maximum Ratings (T<sub>Soldering</sub>=25°C)

Parameter	Symbol	Rating	Unit
Forward Current	I <sub>F</sub>	30	mA
Peak Forward Current (Duty 1/10 @10ms)	I <sub>FP</sub>	100	mA
Power Dissipation	P <sub>d</sub>	110	mW
Electrostatic Discharge(HBM)	ESD	2000	V
Operating Temperature	T <sub>opr</sub>	-40 ~ +85	°C
Storage Temperature	T <sub>stg</sub>	-40 ~ +100	°C
Thermal Resistance (Junction / Soldering point)	R <sub>th J-S</sub>	65	°C/W
Junction Temperature	T <sub>j</sub>	125	°C
Soldering Temperature	T <sub>sol</sub>	Reflow Soldering : 260 °C for 10 sec. Hand Soldering : 350 °C for 3 sec.	

Note:

The products are sensitive to static electricity and must be carefully taken when handling products

## Electro-Optical Characteristics (T<sub>Soldering</sub>=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Luminous intensity	I <sub>v</sub>	2000	-----	2600	mcd	I <sub>F</sub> =20mA
Forward Voltage	V <sub>F</sub>	2.9	-----	3.6	V	I <sub>F</sub> =20mA
Viewing Angle	2θ <sub>1/2</sub>	-----	120	-----	deg	I <sub>F</sub> =20mA

Notes:

1. Tolerance of Luminous flux: ±11%.
2. Tolerance of Forward Voltage : ±0.1V.

## Bin Range of Luminous intensity

Bin Code	Min.	Max.	Unit	Condition
2C	2000	2200	mcd	$I_F=20\text{mA}$
4C	2200	2400		
6C	2400	2600		

Note:  
Tolerance of Luminous Intensity:  $\pm 11\%$

## Bin Range of Forward Voltage

Group	Bin Code	Min.	Max.	Unit	Condition
B2	36	2.9	3.0	V	$I_F=20\text{mA}$
	37	3.0	3.1		
	38	3.1	3.2		
	39	3.2	3.3		
	40	3.3	3.4		
	41	3.4	3.5		
	42	3.5	3.6		

Note:  
Tolerance of Forward Voltage:  $\pm 0.1\text{V}$ .

## Electro-Optical Characteristics

$I_f$ (mA)	$V_f$ (V)	Power (W)	Flux (lm)	Lm/W
20	3.19	0.06	6.7	104.3
25	3.26	0.08	7.8	95.2

Notes:  
Data is only for reference

## Bin Range of Chromaticity Coordinates

CCT	Bin Code	CIE_x	CIE_y	CCT	Bin Code	CIE_x	CIE_y
7000K ~6300K	X5	0.3031	0.3327	5650K ~5000K	V5	0.3288	0.3569
		0.3148	0.3444			0.3469	0.3717
		0.3160	0.3332			0.3458	0.3592
		0.3052	0.3224			0.3290	0.3451
	X6	0.3052	0.3224		V6	0.3290	0.3451
		0.3160	0.3332			0.3458	0.3592
		0.3175	0.3204			0.3444	0.3442
		0.3076	0.3108			0.3292	0.3313
6300K ~5650K	W5	0.3148	0.3444	5000K ~4500K	U5	0.3469	0.3717
		0.3288	0.3569			0.3642	0.3829
		0.3290	0.3451			0.3622	0.3716
		0.3160	0.3332			0.3458	0.3592
	W6	0.3160	0.3332		U6	0.3458	0.3592
		0.3290	0.3451			0.3622	0.3716
		0.3292	0.3313			0.3594	0.3557
		0.3175	0.3204			0.3444	0.3442

Note:

1. The value is based on driving current by 20mA.
2. Tolerance of Chromaticity Coordinates:  $\pm 0.01$

## Bin Range of Chromaticity Coordinates

CCT	Bin Code	CIE_x	CIE_y	CCT	Bin Code	CIE_x	CIE_y
4500K ~4100K	T5	0.3642	0.3829	3800K ~3500K	R5	0.3963	0.4035
		0.3811	0.3937			0.4148	0.4161
		0.3783	0.3825			0.4086	0.3995
		0.3622	0.3716			0.3924	0.3909
	T6	0.3622	0.3716		R6	0.3924	0.3909
		0.3783	0.3825			0.4086	0.3995
		0.3741	0.3658			0.4021	0.3822
		0.3594	0.3557			0.3871	0.3739
4100K ~3800K	S5	0.3811	0.3937	3500K ~3250K	Q5	0.4148	0.4161
		0.3963	0.4035			0.4312	0.4234
		0.3924	0.3909			0.4240	0.4065
		0.3783	0.3825			0.4086	0.3995
	S6	0.3783	0.3825		Q6	0.4086	0.3995
		0.3924	0.3909			0.4240	0.4065
		0.3871	0.3739			0.4165	0.3890
		0.3741	0.3658			0.4021	0.3822
3250K ~3050K	P5	0.4312	0.4234	3050K ~2850K	N5	0.4456	0.4287
		0.4456	0.4287			0.4614	0.4333
		0.4376	0.4116			0.4525	0.4162
		0.4240	0.4065			0.4376	0.4116
	P6	0.4240	0.4065		N6	0.4376	0.4116
		0.4376	0.4116			0.4525	0.4162
		0.4294	0.3943			0.4436	0.3991
		0.4165	0.3890			0.4294	0.3943

Note:

1. The value is based on driving current by 20mA.
2. Tolerance of Chromaticity Coordinates:  $\pm 0.01$





ERROR: stackunderflow  
OFFENDING COMMAND: ~

STACK: