



BRIGHTTEK
BRIGHTTEK (EUROPE) LIMITED

Brighten up The World With LED!



ISO/TS 16949:2009



BS EN ISO 14001:2004



QC 080000 IECQ HSPM

PRODUCT DATASHEET

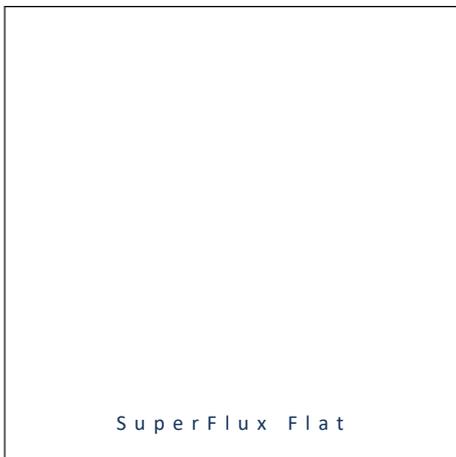


- ▶ SuperFlux (Piranha)
- ▶ Flat 2.5t
- ▶ Cool White (6800K)

NOW61P30S-30MA



Release Date: 27 June 2022 Version: A1.1



SuperFlux Flat



FEATURES:

- **Package:** PTH Through Hole 4-Pins Package
- **Forward Current:** 30mA
- **Forward Voltage (typ.):** 3.3V
- **Luminous Flux (typ.):** 4.9lm@30mA
- **Colour:** Cool White
- **Chromaticity Coordinates (typ.):** X=0.3100; Y=0.3100
- **Viewing angle:** 130°
- **Materials:**
 - Die: InGaN
 - Resin: Epoxy (Water Clear)
 - L/T Finish: Ag plated
- **Operating Temperature:** -20~+80°C
- **Storage Temperature:** -30~+100°C
- **ESD (HBM):** 500V
- **Grouping parameters:**
 - Forward voltage
 - Luminous flux
 - CIE Chromaticity
- **Soldering methods:** Wave Soldering
- **MSL:** acc. to JEDEC Level 3
- **Packing:** 50pcs/tube; 6300pcs/carton

APPLICATIONS:

- Indicator
- Signal Light
- Decorative Light

CHARACTERISTICS:

Absolute Maximum Characteristics (Ta=25°C)

Parameter	Symbol	Ratings	Unit
Forward Current	I _F	30	mA
Pulse Forward Current Duty 1/10 at 10KHz	I _{PF}	100	mA
Power Dissipation	PD	120	mW
Reverse Current @5V	I _R	50	μA
Electrostatics Discharge (HBM)	ESD	500	V
Operating Temperature	T _{OPR}	-20~+80	°C
Storage Temperature	T _{STG}	-30~+100	°C

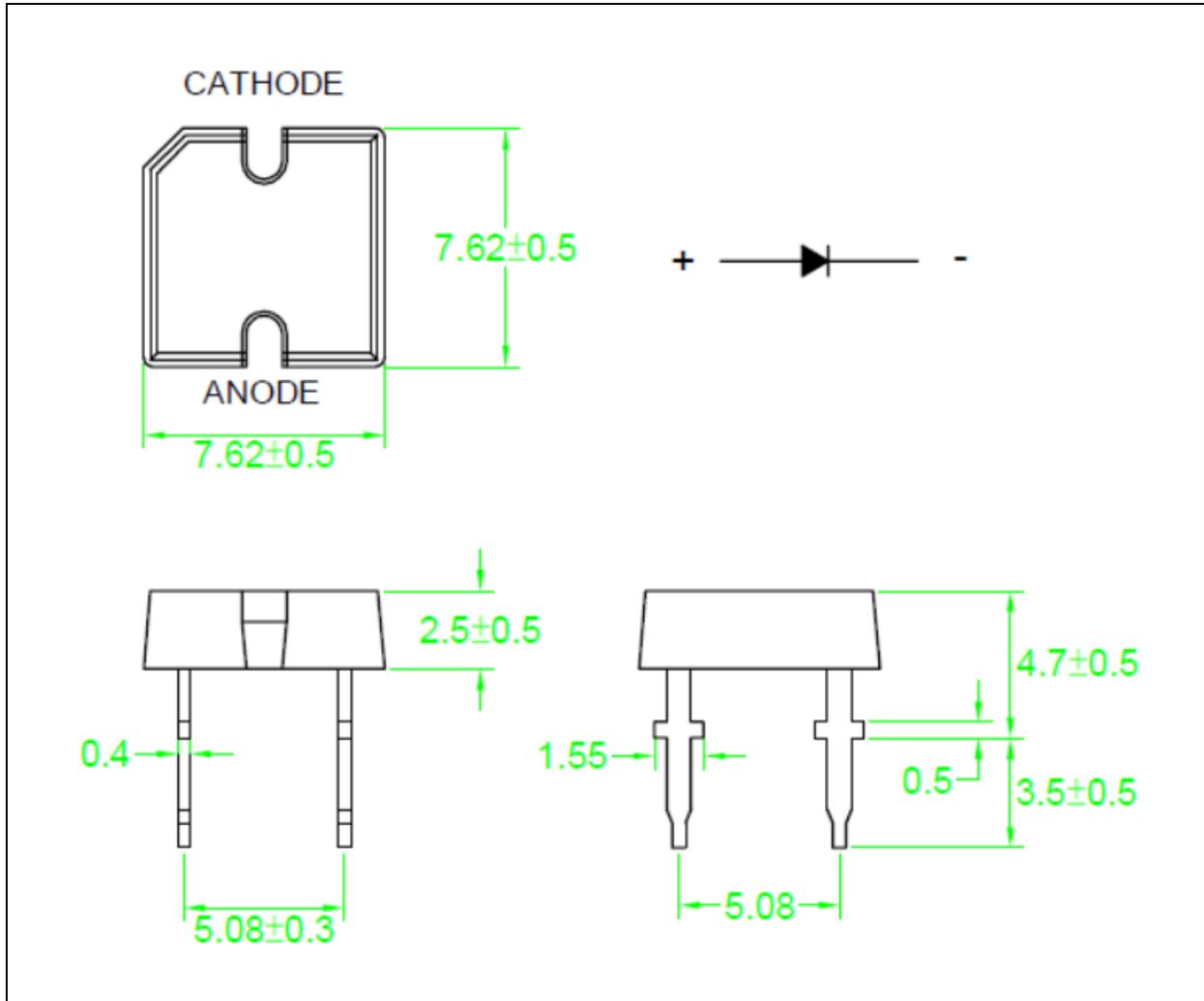
Electrical & Optical Characteristics (Ta=25°C)

Parameter	Symbol	Values			Unit	Test Condition
		Min.	Typ.	Max.		
Forward Voltage	V _F	3.0	---	3.6	V	I _F =30mA
Luminous Flux	Φ _V	3.4	4.9	---	lm	I _F =30mA
Chromaticity Coordinates	X	---	0.3100	---	---	I _F =30mA
	Y	---	0.3100	---		
Colour Temperature	CCT	5000	---	7000	K	I _F =30mA
Viewing Angle	2θ _{1/2}	---	130	---	deg	I _F =30mA

1. Luminous intensity (I_v) ±15%, Forward Voltage (V_F) ±0.1V, Viewing angle(2θ_{1/2}) ±5%

OUTLINE DIMENSION:

Package Dimension:



1. All dimensions are in millimetre (mm).
2. Tolerance ± 0.2 mm, unless otherwise noted.

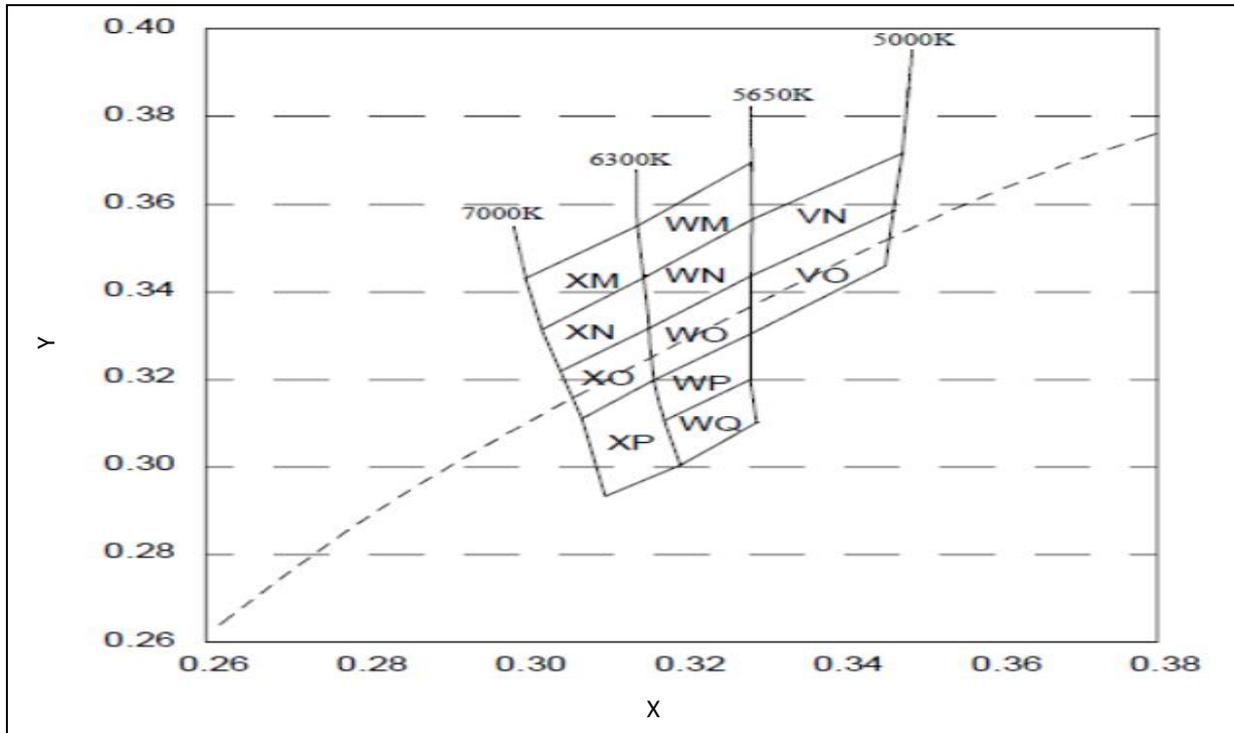
BINNING GROUPS:

 Forward Voltage Classifications ($I_F = 30\text{mA}$):

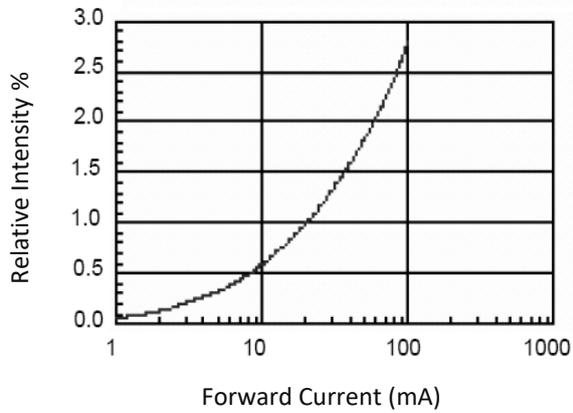
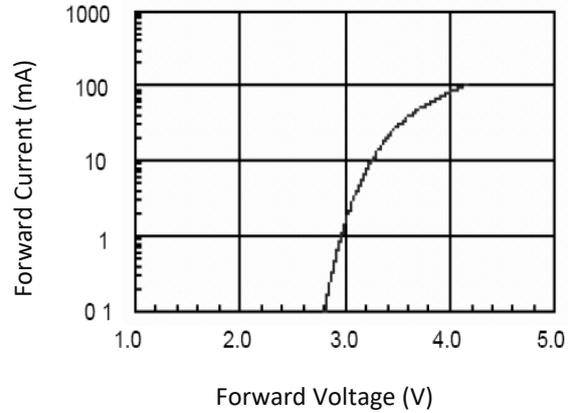
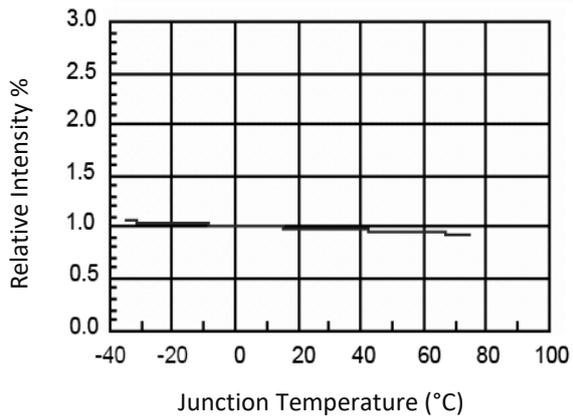
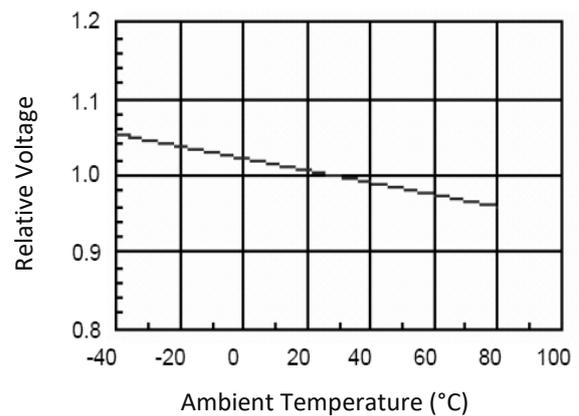
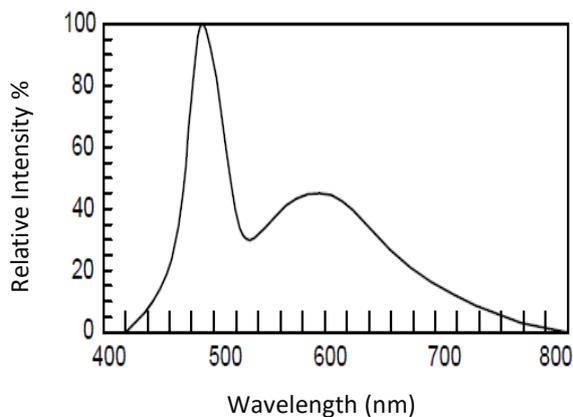
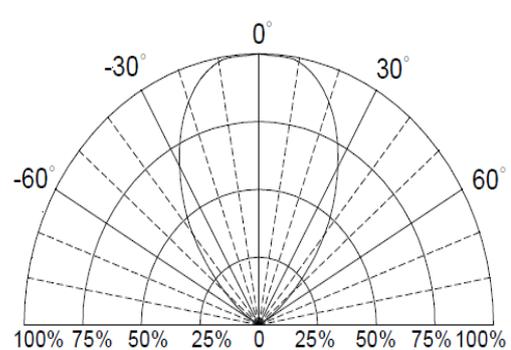
Code	Min.	Max.	Unit
V1	3.0	3.2	V
V2	3.2	3.4	
V3	3.4	3.6	

 Luminous Flux Classifications ($I_F = 30\text{mA}$):

Code	Min.	Max.	Unit
F12	3.4	3.8	lm
F13	3.8	4.9	
F14	4.9	6.3	
F15	6.3	8.2	
F16	8.2	10.7	
F17	10.7	13.9	

CIE CHROMATICITY DIAGRAM:

 Chromaticity Coordinates Classifications ($I_F = 30\text{mA}$):

	1		2		3		4	
	X	Y	X	Y	X	Y	X	Y
VN	0.3290	0.3450	0.3290	0.3570	0.3470	0.3720	0.3450	0.3590
VO	0.3290	0.3310	0.3290	0.3450	0.3460	0.3590	0.3440	0.3440
WM	0.3290	0.3690	0.3290	0.3570	0.3150	0.3440	0.3140	0.3550
WN	0.3290	0.3450	0.3160	0.3330	0.3150	0.3440	0.3290	0.3570
WO	0.3290	0.3450	0.3290	0.3310	0.3170	0.3200	0.3160	0.3330
WP	0.3290	0.3310	0.3290	0.3200	0.3180	0.3100	0.3170	0.3200
WQ	0.3185	0.3105	0.3290	0.3200	0.3300	0.3100	0.3200	0.3010
XW	0.3010	0.3420	0.3140	0.3550	0.3150	0.3440	0.3030	0.3330
XN	0.3050	0.3220	0.3030	0.3330	0.3150	0.3440	0.3160	0.3330
XO	0.3080	0.3110	0.3050	0.3220	0.3160	0.3330	0.3170	0.3200
XP	0.3080	0.3110	0.3170	0.3200	0.3200	0.3010	0.3110	0.2930

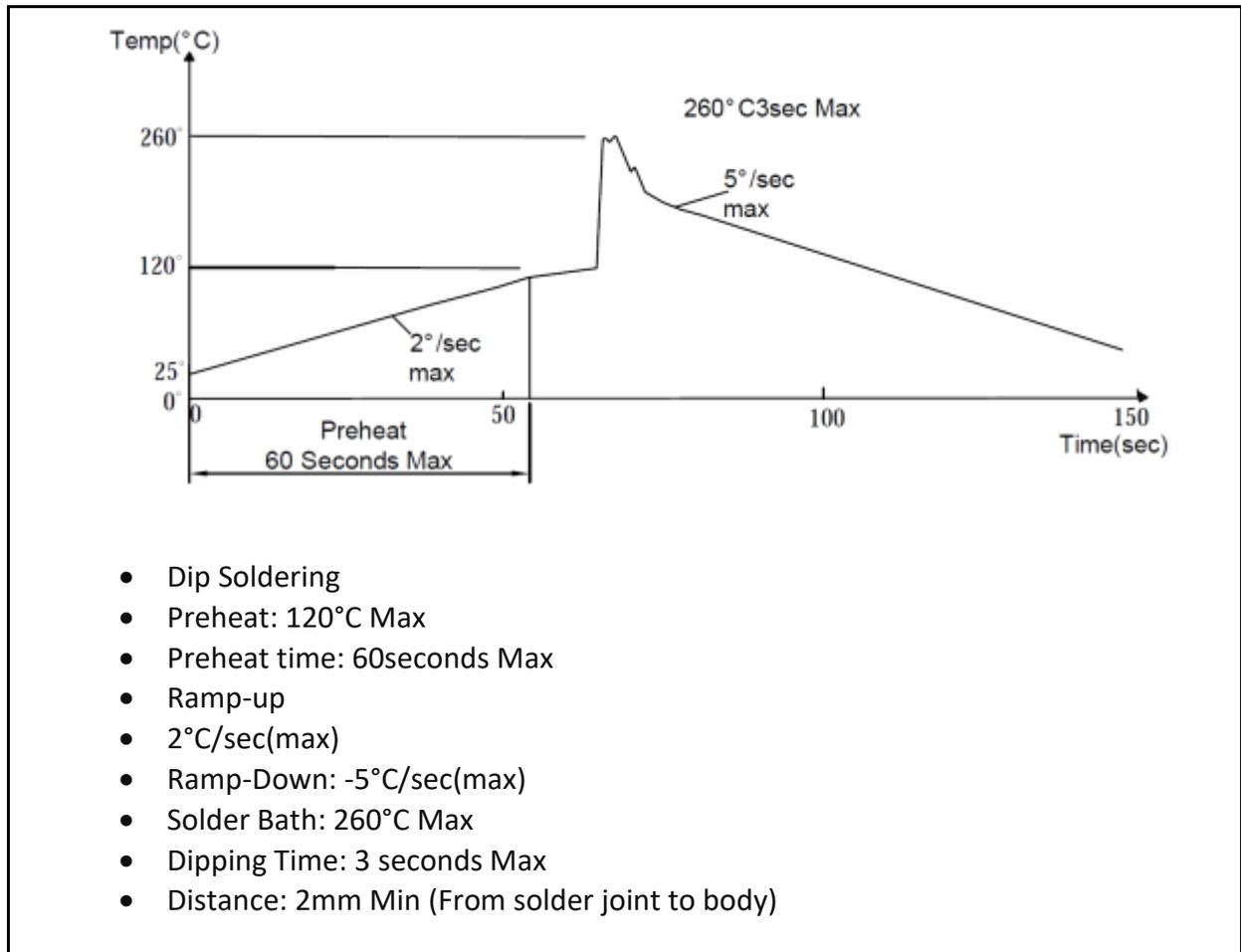
ELECTRO-OPTICAL CHARACTERISTICS:
Relative Intensity v.s. Forward Current

Forward Current v.s. Forward Voltage

Relative Intensity v.s. Temperature

Forward Current Derating Curve

Relative Intensity v.s. Wavelength

Directive Radiation


RECOMMENDED SOLDERING PROFILE:

DIP Iron:

- Soldering Iron 30W Max.
- Temperature 350°C Max.
- Soldering Time 3 seconds Max. One time only.
- Distance 2mm Min. (from solder joint to body).

Wave Soldering Profile:

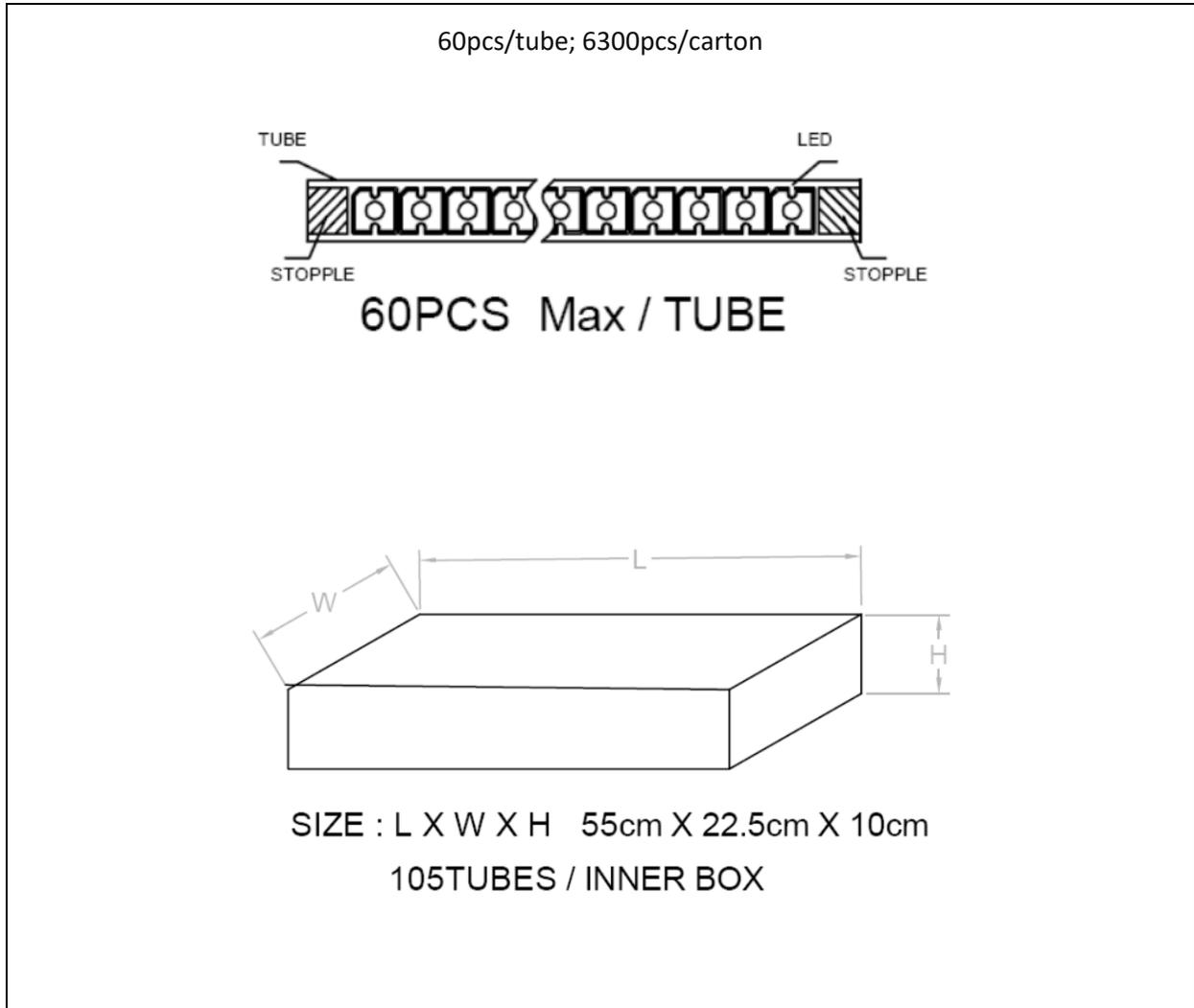


Note:

1. Maximum reflow soldering: 1 time.
2. Before, during, and after soldering, should not apply stress on the components and PCB board.
3. Recommended reflow temperature 240°C. The maximum soldering temperature should be limited to 260°C.

PACKING SPECIFICATION:

Tube Dimension:



PRECAUTIONS OF USE:

Storage:

It is recommended to store the products in the following conditions:

- Humidity: 60% R.H. Max.
- Temperature: 5°C~30°C (41°F ~86°F).

Shelf life in sealed bag: 12 months at 5°C~30°C and <60% R.H.

Once the package is opened, the products should be used within a week. Otherwise, they should be kept in a damp-proof box with desiccating agent <10% R.H. and apply baking before use.

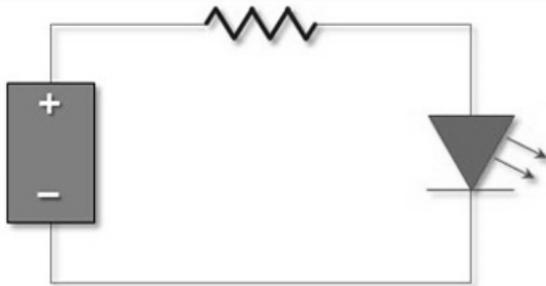
Baking:

It is recommended to bake the LED before soldering if the pack has been unsealed for longer than 24hrs. The suggested baking conditions are as followings:

- 60±3°C x 6hrs and <5%RH, for reel package.

It's normal to see slight color fading of carrier (light yellow) after baking in process.

Testing Circuit:



Must apply resistor(s) for protection (over current proof).

Cleaning:

Use alcohol-based cleaning solvents such as isopropyl alcohol to clean the LED carrier / package. Avoid putting any stress force directly on to the LED lens.

ESD (Electrostatic Discharge):

Static Electricity or power surge will damage the LED. Use of a conductive wrist band or anti-electrosatic glove is recommended when handling the LED all time. All devices, equipment, machinery, work tables, and storage racks must be properly grounded.

In the events of manual working in process, make sure the devices are well protected from ESD at any time.

REVISION RECORD:

Version	Date	Summary of Revision
A1.0	10/01/2017	Datasheet set-up.
A1.1	27/06/2022	New datasheet format.