

Model: L-TPB3-C01

120 Degree 3.2 x 2.8mm SMT-LED in Blue Color with Water Transparent

Dice Material:

InGaN

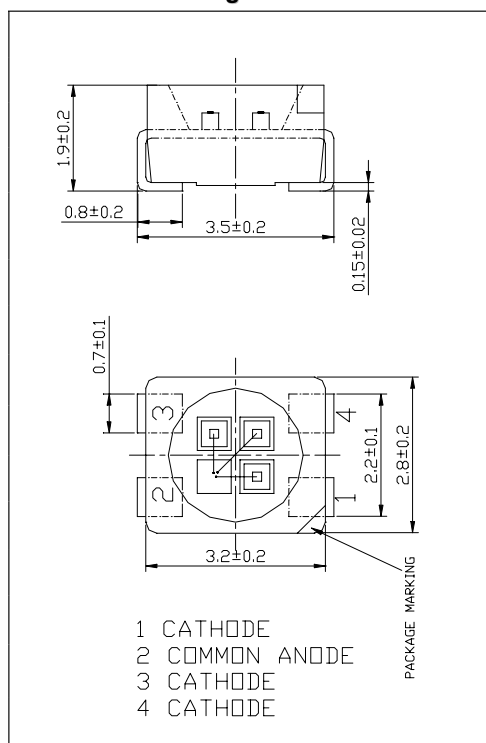
Applications:

- Indicators
- Illuminations
- LCD Back Lights
- Automobile's Applications

Absolute Maximum Ratings at Ta = 25°C

Items	Symbol	Absolute	Unit
Forward Current	I_F	3 X 25	mA
Peak Forward	I_{FP}	3 X 100	mA
Reverse Voltage	V_R	5	V
Power Dissipation	P_D	3 X 105	mW
Operation	T_{opr}	-40 ~ + 100	°C
Storage Temperature	T_{stg}	-40 ~ + 100	°C
Junction	T_j	+110	°C
Junction/ambient **	$R_{th JA}$	3 X 680	°C /W
Junction/solder	$R_{th JS}$	3 X 450	°C /W

Dimension Drawing



*pulse width≤0.1msec duty ≤1/10 ** Rth test condition: Mounted on PC Board FR 4(pad size≥16mm²)

Typical Electrical & Optical Characteristics (Ta = 25°C)

Items	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Voltage	V_F	$I_F = 3 \times 20\text{mA}$	---	3.6	4.2	V
Reverse Current	I_R	$V_R = 5\text{V}$	---	---	10	μA
Luminous Intensity	I_V	$I_F = 3 \times 20\text{mA}$	224	410	---	mcd
Dominant Wavelength	λ_D	$I_F = 3 \times 20\text{mA}$	460	470	480	nm
50% Power Angle	$2\theta_{1/2}$	$I_F = 3 \times 20\text{mA}$	---	120	---	deg

Ranks Combination ($I_F = 20\text{mA}$)

Rank	S2	T1	T2	U1
Luminous Intensity	224-280mcd	280-355mcd	355-450mcd	450-560mcd

Important Notes:

- 1) Tolerance of measurement of luminous intensity is ±10%
- 2) Tolerance of measurement of dominant wavelength is ±1nm
- 3) Tolerance of measurement of V_f is ±0.05 V.

Graphs

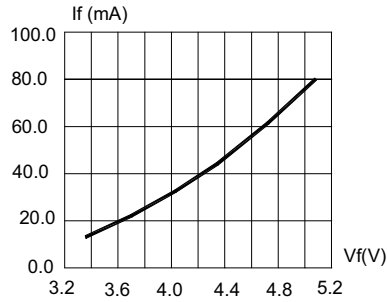


FIG.1 FORWARD CURRENT VS. FORWARD VOLTAGE.

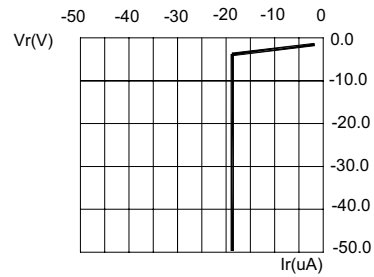
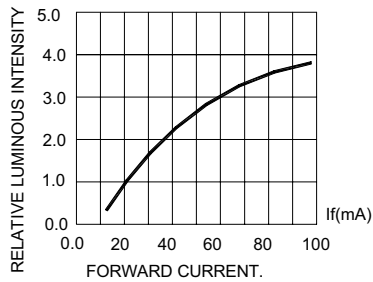


FIG.2 REVERSE CURRENT VS. REVERSE VOLTAGE.



FORWARD CURRENT.

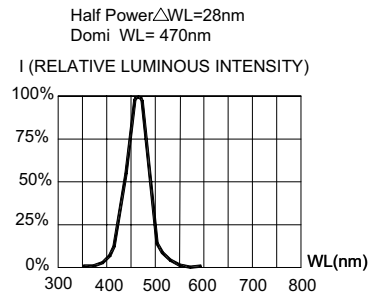


FIG.4 RELATIVE LUMINOUS INTENSITY VS. WAVELENGTH.

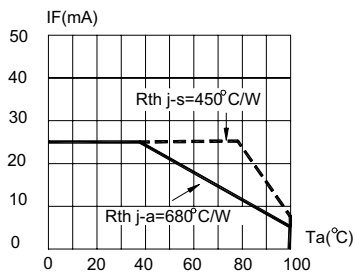


FIG.5 MAXIMUM FORWARD DC CURRENT VS TEMPERATURE. DERATING BASED ON $T_{jmax}=110^{\circ}\text{C}$

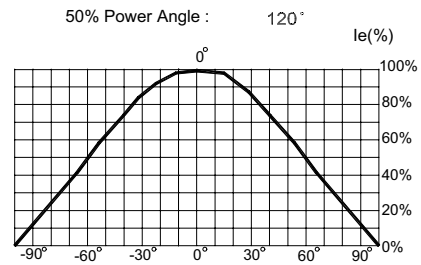


FIG.6 SPATIAL DISTRIBUTION.