

Model: L-TPG3-C01

120 Degree 3.2 x 2.8mm SMT-LED in Pure Green 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 maximum Rating	Unit
Forward Current	I_F	3 X 25	mA
Peak Forward Current*	I_{FP}	3 X 100	mA
Reverse Voltage	V_R	5	V
Power Dissipation	P_D	3 X 105	mW
Operation Temperature	T_{opr}	-40 ~ + 100	°C
Storage Temperature	T_{stg}	-40 ~ + 100	°C
Junction temperature	T_j	+110	°C
Junction/ambient **	$R_{th JA}$	3 X 680	°C /W
Junction/solder point	$R_{th JS}$	3 X 450	°C /W

*pulse width $\leq 0.1\text{msec}$ duty $\leq 1/10$ ** Rth test condition: Mounted on PC Board FR 4 (pad size $\geq 16\text{mm}^2$)

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	$I_F = 3 \times 20\text{mA}$	1120	1700	---	mcd
Dominant Wavelength	λ_D	$I_F = 3 \times 20\text{mA}$	520	525	540	nm
50% Power Angle	$2\theta_{1/2}$	$I_F = 3 \times 20\text{mA}$	---	120	---	deg

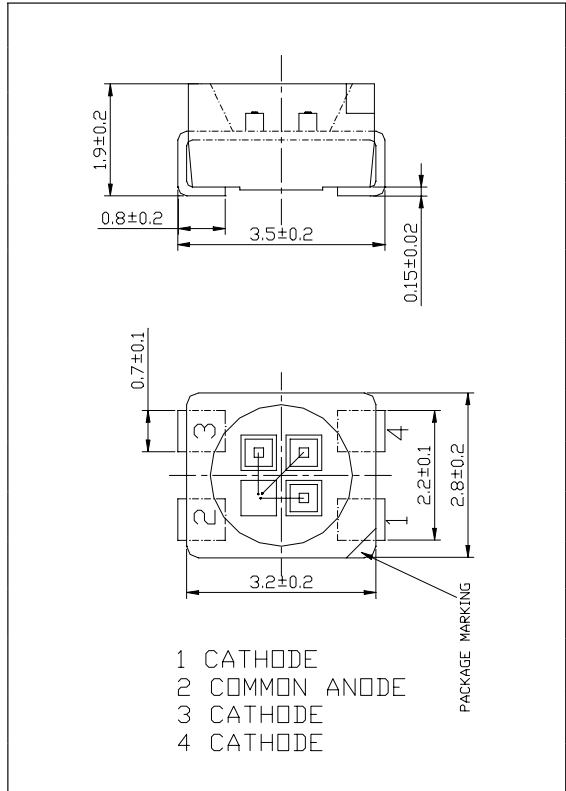
Ranks Combination ($I_F = 20\text{mA}$)

Rank	W1	W2	X1	X2
Luminous Intensity	1120-1400 mcd	1400-1800 mcd	1800-2240 mcd	2240-2800 mcd

Important Notes:

- 1) Tolerance of measurement of luminous intensity is $\pm 10\%$
- 2) Tolerance of measurement of dominant wavelength is $\pm 1\text{nm}$
- 3) Tolerance of measurement of Vf is $\pm 0.05\text{V}$.

Dimension Drawing



Graphs

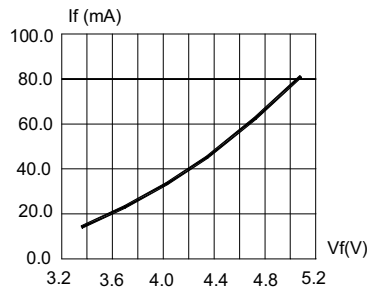


FIG.1 FORWARD CURRENT VS. FORWARD VOLTAGE.

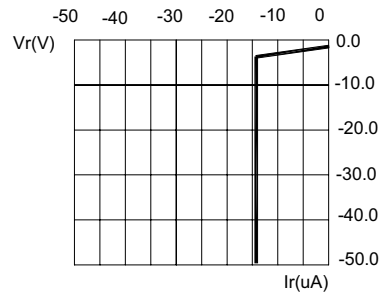


FIG.2 REVERSE CURRENT VS. REVERSE VOLTAGE.

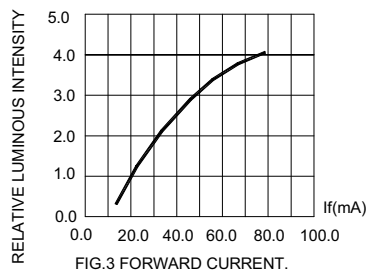


FIG.3 FORWARD CURRENT.

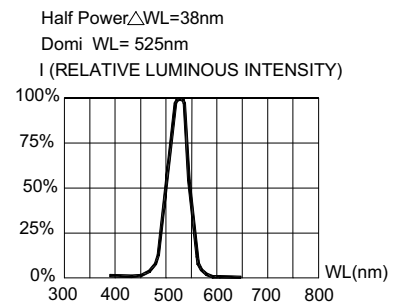


FIG.4 RELATIVE LUMINOUS INTENSITY VS. WAVELENGTH.

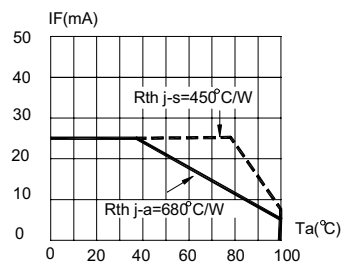


FIG.5 MAXIMUM FORWARD DC CURRENT VS TEMPERATURE. DERATING BASED ON $T_{jmax} = 110^\circ C$

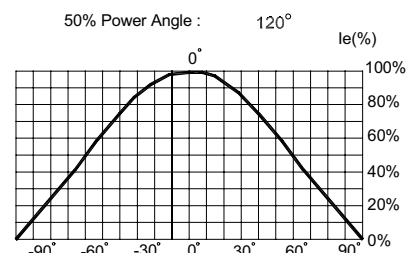


FIG.6 SPATIAL DISTRIBUTION.