



BRIGHT LED ELECTRONICS CORP.

DATA SHEET

● DEVICE NUMBER : BL-B3141J-LC17/18-AA

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2008.12.2	1.0	1.0	1.0	1.0							Original Released

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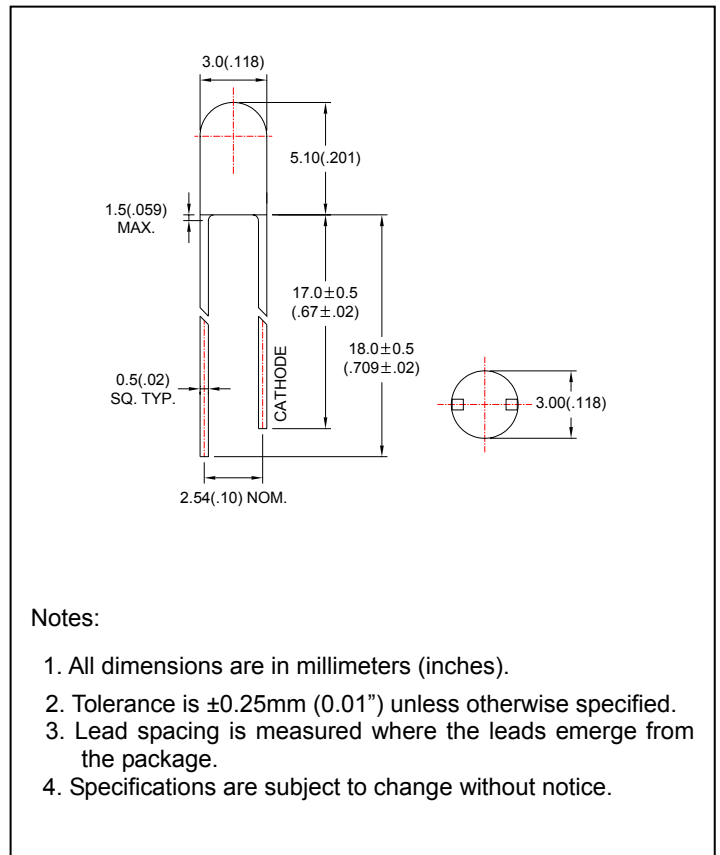
● Features:

1. Chip material: GaAsP/GaP
2. Emitted color : Yellow
3. Lens Appearance : Yellow Diffused
4. Low power consumption.
5. High efficiency.
6. Versatile mounting on P.C. Board or panel.
7. Low current requirement.
8. 3mm diameter package
9. This product don't contained restriction substance, compliance ROHS standard.

● Applications:

1. TV set
2. Monitor
3. Telephone
4. Computer
5. Circuit board

● Package dimensions:



● Absolute Maximum Ratings($T_a=25^\circ\text{C}$)

Parameter	Symbol	Rating	Unit
Power Dissipation	P_d	80	mW
Forward Current	I_F	30	mA
Peak Forward Current* ¹	I_{FP}	150	mA
Reverse Voltage	V_R	5	V
Operating Temperature	T_{opr}	$-40^\circ\text{C} \sim 85^\circ\text{C}$	
Storage Temperature	T_{stg}	$-40^\circ\text{C} \sim 100^\circ\text{C}$	
Soldering Temperature	T_{sol}	260°C max(for 5 seconds)	
Hand Soldering Temperature	T_{sol}	350°C max(for 3 seconds)	

*¹Condition for I_{FP} is pulse of 1/10 duty and 0.1msec width.

● Electrical and optical characteristics(Ta=25°C)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Voltage	V _F	I _F =20mA	-	2.1	2.6	V
Luminous Intensity	I _v	I _F =20mA	-	30	-	mcd
Reverse Current	I _R	V _R =5V	-	-	100	μA
Peak Wave Length	λ _p	I _F =20mA	-	585	-	nm
Dominant Wave Length	λ _d	I _F =20mA	580	-	594	nm
Spectral Line Half-width	Δλ	I _F =20mA	-	35	-	nm
Viewing Angle	2θ _{1/2}	I _F =20mA	-	35	-	deg

● Typical Electro-Optical Characteristics Curves

Fig.1 Relative intensity vs. Wavelength

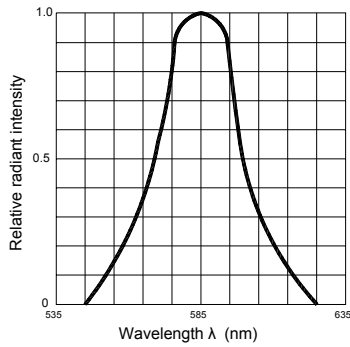


Fig.2 Forward current derating curve vs. Ambient temperature

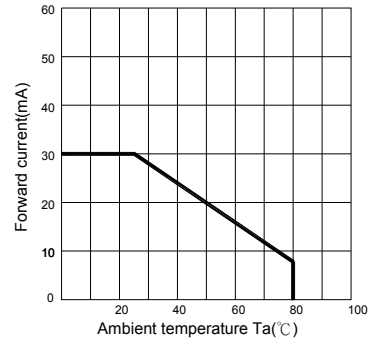


Fig.3 Forward current vs. Forward voltage

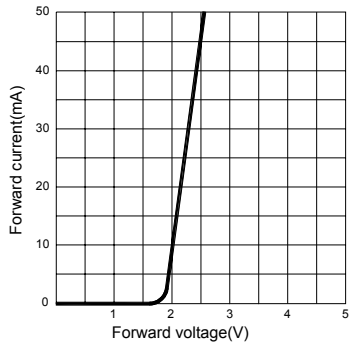


Fig.4 Relative luminous intensity vs. Ambient temperature

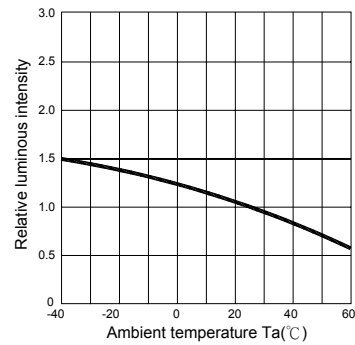


Fig.5 Relative luminous intensity vs. Forward current

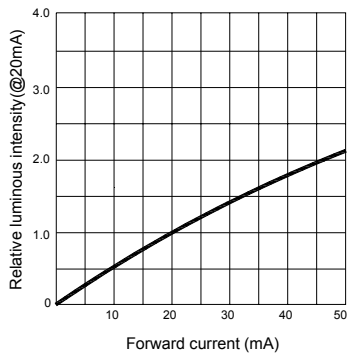
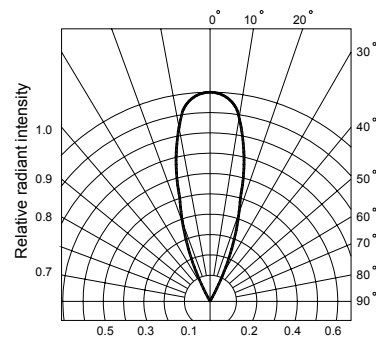


Fig.6 Radiation diagram



● **Bin Limits**

1. Intensity bin limits (At $I_F=20\text{mA}$)

Bin Code	Min. (mcd)	Max. (mcd)
J	8.2	12.3
K	12.3	18.5
L	18.5	28
M	28	42
N	42	63
P	63	94
Q	94	140

2. Color Bin Limits (At $I_F=20\text{mA}$) : Dominant Wave Length $\lambda_d(\text{nm})$

Bin Code	Min. (nm)	Max. (nm)
1	580	582
2	582	584
3	584	586
4	586	588
5	588	590
6	590	592
7	592	594

● Bin : \underline{x} \underline{x}



NOTES: 1. Tolerance of measurement of luminous intensity. :±15%

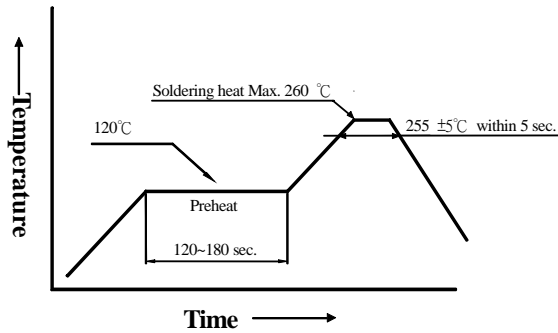
2. Tolerance of measurement of dominant wavelength :±1.0nm

●DIP soldering (Wave Soldering)

Preheating : 120°C, within 120~180 sec.

Operation heating : 255°C ±5°C within 5 sec. 260°C (Max)

Gradual Cooling (Avoid quenching).



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