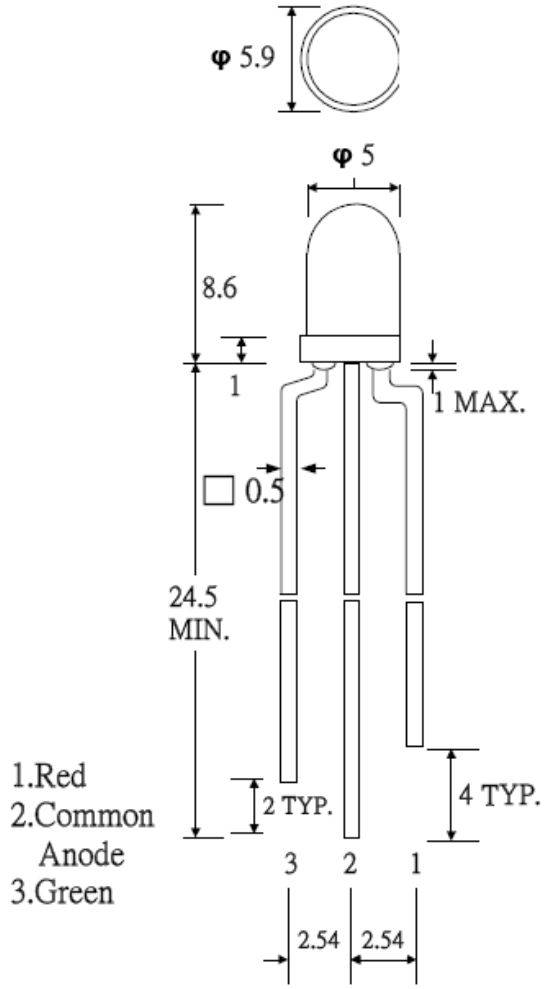
SPECIFICATIONS CLB50R3GT3W

OUTLINES DIMENSIONS



DESCRIPTION

- Super bright LED Lamp
- Bi-Color (Green/Red)
- Round Type
- 3 Leads
- Lens color: White Diffused
- With flange
- Solder leads without stand-off
- RoHS Compliant

FEATURES

- Emitted color: Green/Red
- High Luminous Intensity
- Technology: InGaN / AlGaInP
- Peak wavelength λ_p = 528/630nm
- Viewing angle: 50D°

Notes:
1. All Dimensions are in millimeters (inches).
2. Tolerance is ± 0.25mm (0.01") unless otherwise noted.
3. Specifications are subject to change without notice.

Part Number	Chip Material	Color of Emission	Lens Type	Viewing Angle
CLB50R3GT3W	InGaN/InGaAlP	Green/Red	White Diffused	50°

ABSOLUTE MAXIMUM RATINGS (TA=25°C)

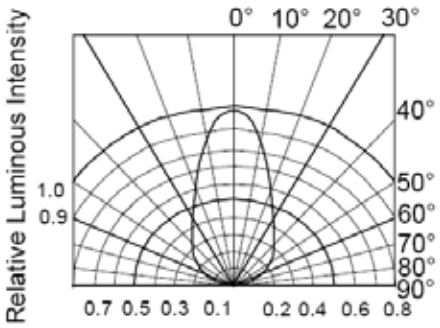
Parameter	Symbol	Max Rating	Unit
Power Dissipation	P_D	120	mW
Pulse Current Forward Current	I_{FP}	100	mA
Continuous Forward Current	I_F	30	mA
Reverse Voltage	V_R	5	V
Operating Temperature Range	T_{OPR}	-40~+85	°C
Storage Temperature Range	T_{STG}	-40~+85	°C
I_{FP} = Pulse Width ≤ 10 ms, Duty Ratio ≤1/10. Soldering Condition: 260 °C/ 5sec			

OPTICAL-ELECTRICAL CHARACTERISTICS (TA=25°C)

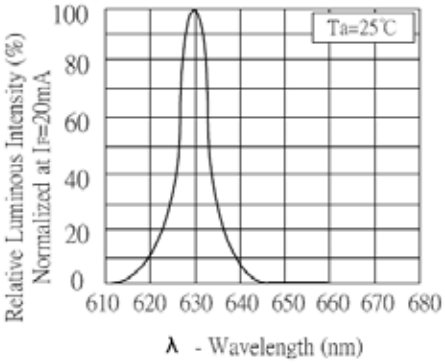
Parameter	Symbol	Test Condition	Color	Value			Unit
				Min	Typ	Max	
Luminous Intensity	Iv	I_F = 20mA	Red	-	2500	-	mcd
			Green	-	2500	-	
Forward Voltage	V_F	I_F = 20mA	Red	-	2.0	2.4	V
			Green	-	3.2	3.8	
Reverse Leakage Current	I_R	V_R = 5V	Red	-	-	10	μA
			Green	-	-	10	
Viewing Angle	2θ1/2	I_F = 20mA	Red	-	50	-	deg
			Green	-	50	-	
Dominant Wavelength	λ_D	I_F = 20mA	Red	-	625	-	nm
			Green	-	525	-	

*Tolerance of viewing angle: -10 / +5 deg.

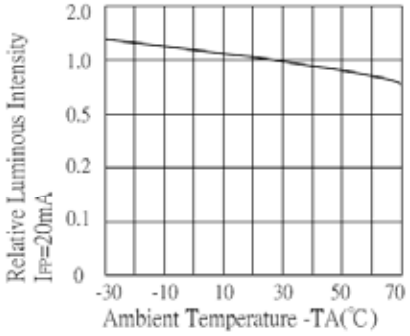
OPTICAL CHARACTERISTIC CURVES (RED)



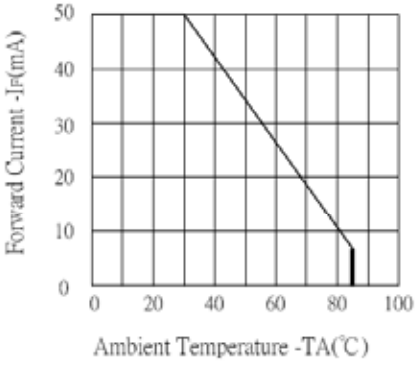
RADIATION DIAGRAM



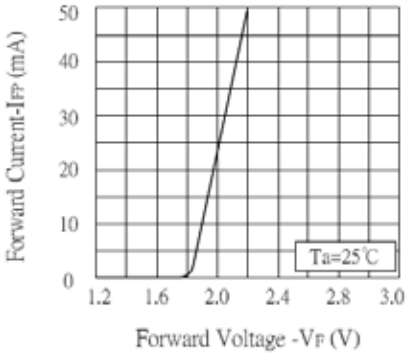
RELATIVE LUMINOUS INTENSITY Vs. WAVELENGTH



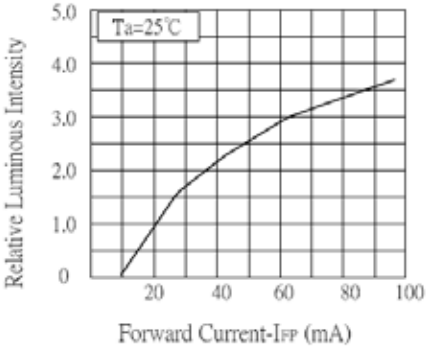
LUMINOUS INTENSITY Vs. AMBIENT TEMPERATURE



MAX FORWARD CURRENT Vs. AMBIENT TEMPERATURE

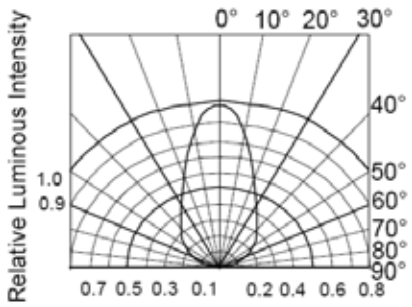


FORWARD CURRENT Vs. FORWARD VOLTAGE

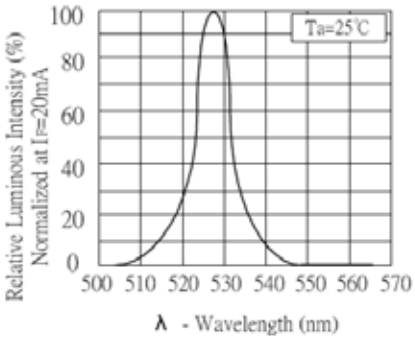


LUMINOUS INTENSITY Vs. FORWARD CURRENT

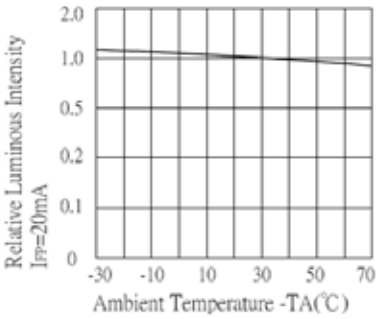
OPTICAL CHARACTERISTIC CURVES (GREEN)



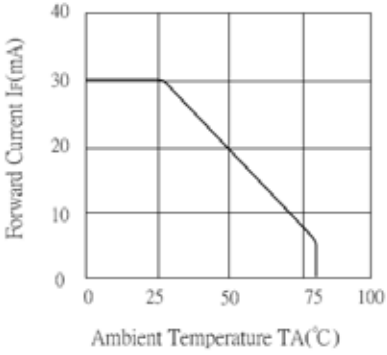
RADIATION DIAGRAM



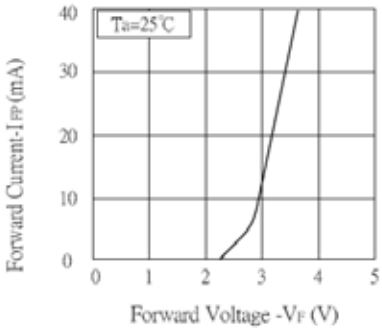
RELATIVE LUMINOUS INTENSITY Vs. WAVELENGTH



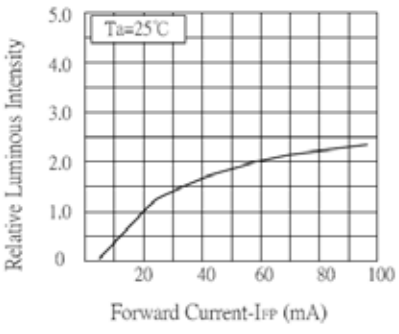
LUMINOUS INTENSITY Vs. AMBIENT TEMPERATURE



MAX FORWARD CURRENT Vs. AMBIENT TEMPERATURE



FORWARD CURRENT Vs. FORWARD VOLTAGE



LUMINOUS INTENSITY Vs. FORWARD CURRENT

SOLDERING CONDITIONS – LAMP TYPE LED

LAMP HANDLING AND APPLICATION PRECAUTIONS

STORAGE

(1.1) It is recommended to store the products in the following conditions:

Humidity: 60% RH Max.

Temperature: 5℃~40℃(41℉~105℉)

(1.2) Shelf life in sealed bag:3 month at < 40℃and < 90% RH.

FORMING

1. Any forming on lead pin must be done before soldering, not during or after soldering.
2. Avoid applying any stress to resin in order to prevent the epoxy fracture and break on bonding wire.
3. While forming, please use a tie bar cut or equivalent to hold or bend the pin.
4. 2mm from the base of resin is the minimum distance for the place bending the lead pin.
5. Avoid bending the lead pin at the same point twice or more

SOLDERING

1. No stress can be applied to lead pins when they are heated, otherwise disconnection may occur.
2. When an LED is mounted into a P.C. board, pitch spacing should be aligned carefully to avoid causing any stress to the lead wires.
3. Mounting direction (electrode direction) of SMD LED and Display should be perpendicular to direction of p.c. board curve.
4. After soldering, don't bend the P.C. board.

CLEANING

1. Avoid using any unspecified chemical solvent to clean LED. For example, Trichloroethylene, Chlorosen, Acetone, and Diflon S3MC.
2. Any cleaning method can only be taken under normal temperature in one minute or less if it is required.
3. Special attention should be taken when using any chemicals for cleaning because some chemicals may damage the surface of epoxy.