Winger Electronics
WEBRG02-GW
3mm Bicolor LED

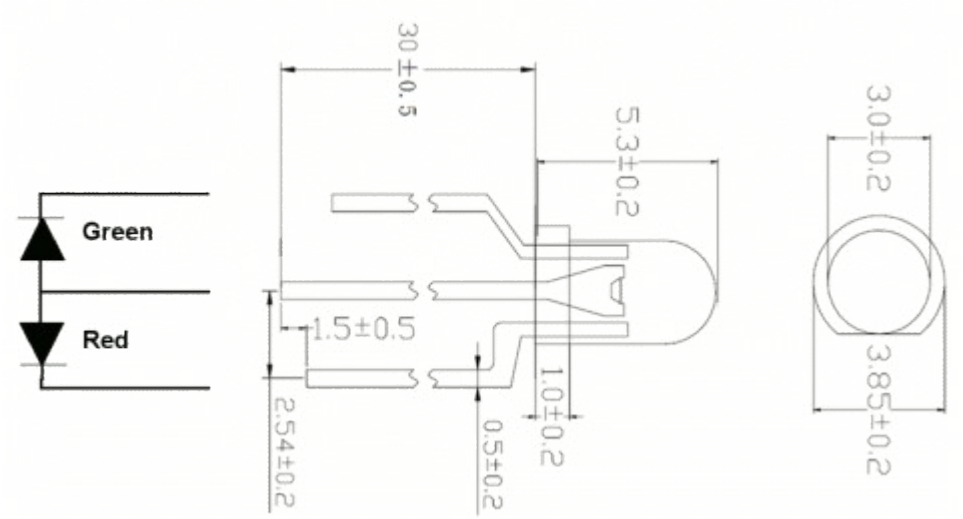
ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
SENSITIVE DEVICES

RoHS COMPLIANT

Description

- 3mm Bicolor LED
- Emitting Color: Red, Green

Dimension figure



Unit: mm
Tolerances: ±0.25mm

Absolute Maximum Ratings

Item	Symbol	Absolute Maximum Rating	Unit
Forward Current	I_F	2x 30	mA
Peak Forward Current *	I_{FP}	2x 70	mA
Reverse Voltage	V_R	5	V
Power Dissipation	P_O	100 (green)	mW
		70 (red)	
Operating Temperature	T_{OPR}	-20 ~ +50	°C
Storage Temperature	T_{stg}	-40 ~ +80	°C
Lead Soldering Temperature	T_{SOL}	Max. 5 sec @ 260	°C

*I_{FP} Conditions: 1/10 Duty Cycle, 0.1ms Puls Width
*T_{SOL} Conditions: 3mm space from epoxy base

Typical Optical/Electrical Characteristics

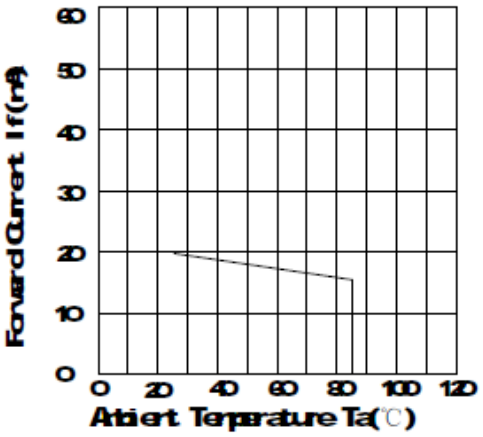
Item	Symbol	Condition		Min.	Typ.	Max.	Unit
Forward Voltage	V_F	I_F=20mA	Red	1,9	2	2,5	V
			Green	3	3,1	3,6	
50% Power Angle				-	75	-	deg
Luminous Intensity	I_V		Red	-	1400	-	mcd
			Green	-	1700	-	
Dominant Wavelength	λ_D		Red	615	-	630	nm
			Green	515	-	525	nm
Recommended Forward Current	$I_{F(rec)}$			-	-	20	mA
Reverse Current	I_R	V_R=5V		-	-	5	µA

Notes:

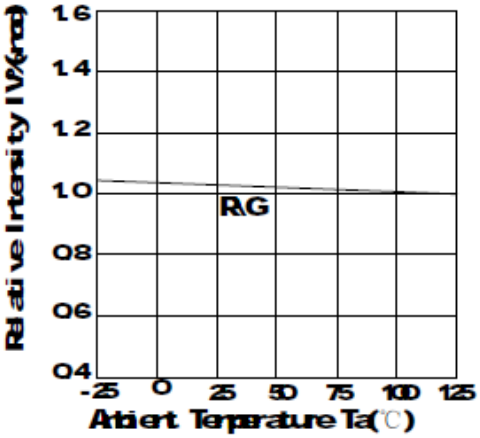
1. It's strongly recommended to limit die temperature to 60°C
2. Absolute maximum ratings Ta=25°C
3. Measurement Tolerances of Forward Voltage ±0.1V
4. Measurement Tolerances of peak wavelength ±2.0nm
5. Measurement Tolerances of luminous intensity ±15%
6. Measurement Tolerances of angle intensity ±15%

Typical electrical and optical characteristics

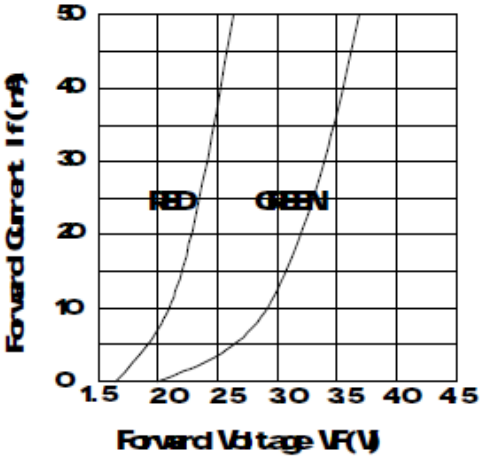
Forward Current vs. Ambient Temperature



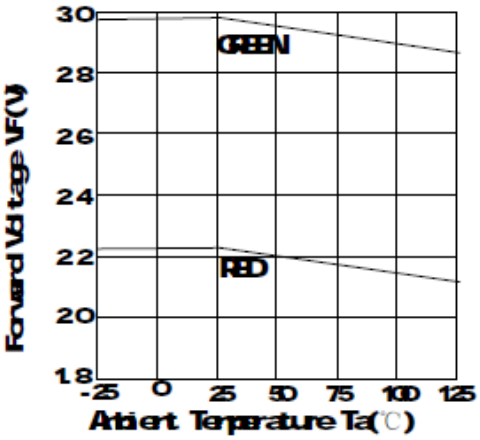
Relative Intensity vs. Ambient Temperature

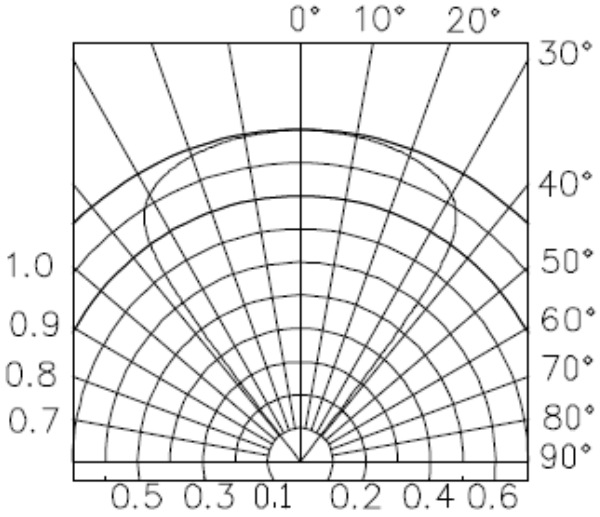


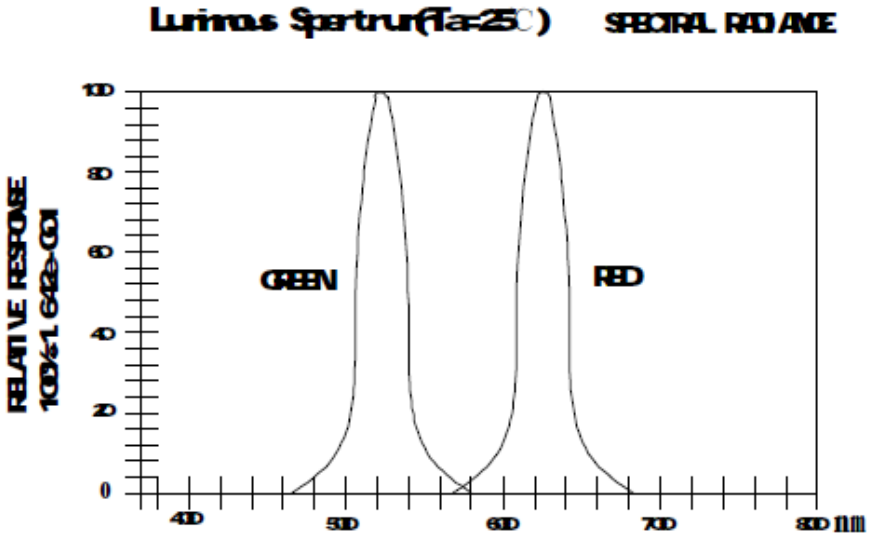
Forward Current vs. Forward Voltage



Forward Voltage vs. Ambient Temperature




0° 10° 20°
30°
40°
50°
60°
70°
80°
90°
1.0
0.9
0.8
0.7
0.5 0.3 0.1 0.2 0.4 0.6


GREEN
RED

9. Warranty

(1) Perform an acceptance inspection on arrival of the goods. Return the defectives if any stipulating the disqualification and quantity.

(2) Embedding the LEDs into the application and the verification of life and other qualities in practical use shall be executed by user.

(3) Do not use the LEDs for the applications that require the higher reliability and security and that may endanger life and health by the breakdown and the malfunction. Seller shall not bear any responsibility or liability with respect to any claims and damages caused by user’s usage of the LEDs without following our intended purpose or any written consent.

(4) Seller shall not bear responsibility for any damages or defects caused by improper operation at the current in excess of the absolute maximum ratings that are not covered by warranty.