



Data Sheet

Customer: _____

Part No: _____

CL-SP192DLGDNB-02

Sample No: _____

Description: _____

1608 SMD G+B Bi Color

Item No: _____

Customer			
Check	Inspection	Approval	Date



ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
SENSITIVE DEVICES

Features

- _1.6mmx0.8mm SMT LED,0.70mm THICKNESS.
- _LOW POWER CONSUMPTION.
- _WIDE VIEWING ANGLE.
- _IDEAL FOR BACKLIGHT AND INDICATOR.
- _VARIOUS COLORS AND LENS TYPES AVAILABLE.
- _PACKAGE : 4000PCS / REEL.
- _RoHS COMPLIANT.

Description

The Blue source color devices are made with GaN on Sapphire Light Emitting Diode.

The Green source color devices are made with InGaN on SiC Light Emitting Diode.

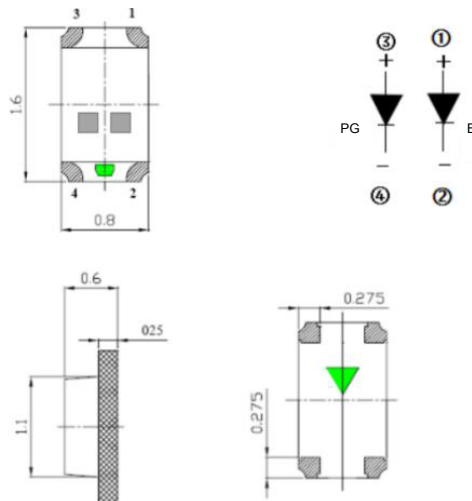
The Hyper Orange source color devices are made with DH InGaAlP on GaAs substrate Light Emitting Diode.

Static electricity and surge damage the LEDs.

It is recommended to use a wrist band or anti-electrostatic glove when handling the LEDs.

All devices, equipment and machinery must be electrically grounded.

Package Dimensions



Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is $\pm 0.1(0.004)$ unless otherwise noted.
3. Specifications are subject to change without notice.

Selection Guide

Part No.	Dice	Lens Type	Iv (mcd) @ 20mA		Viewing Angle
			Min.	MAX.	2 θ 1/2
CL-SP192DLGDNB-02	BLUE (GaN)	WATER CLEAR	180	320	120
	GREEN (InGaN)		380	460	

Note:

1. θ 1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.

Electrical / Optical Characteristics at TA=25°C

Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λ_{peak}	Peak Wavelength	Blue			nm	IF=20mA
		Green				
λ_D	Dominant Wavelength	Blue	464	474	nm	IF=20mA
		Green	516	524		
$\Delta\lambda_{1/2}$	Spectral Half-width	Blue	25		nm	IF=20mA
		Green	38			
C	Capacitance	Blue	100		pF	VF=0V;f=1MHz
		Green	45			
VF	Forward Voltage	Blue	2.6	3.3	V	IF=20mA
		Green	2.6	3.2		
IR	Reverse Current	Blue		5	uA	VR = 5V
		Green		5		

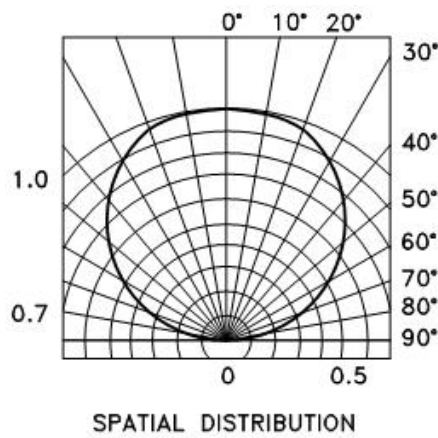
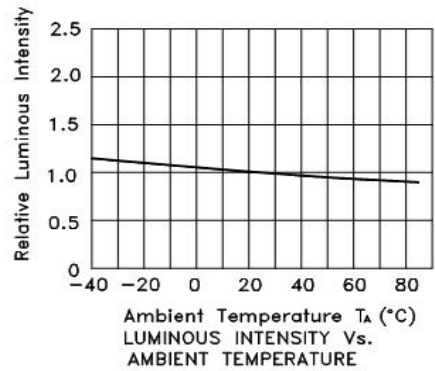
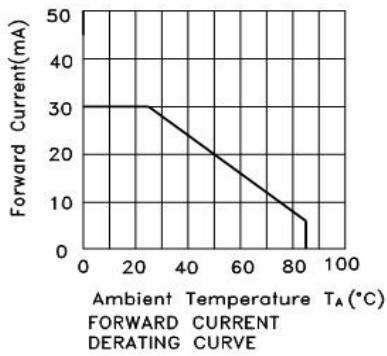
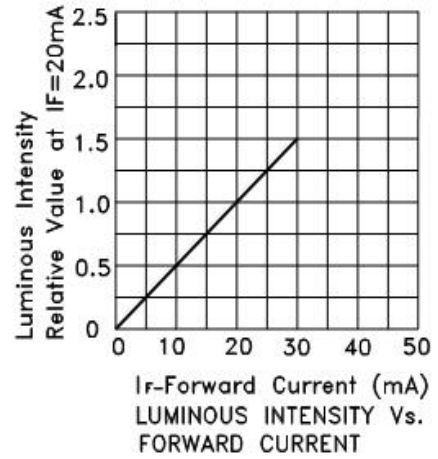
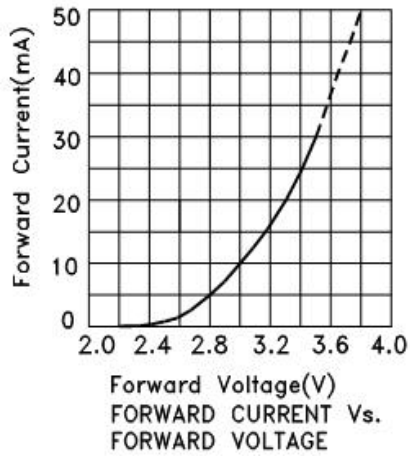
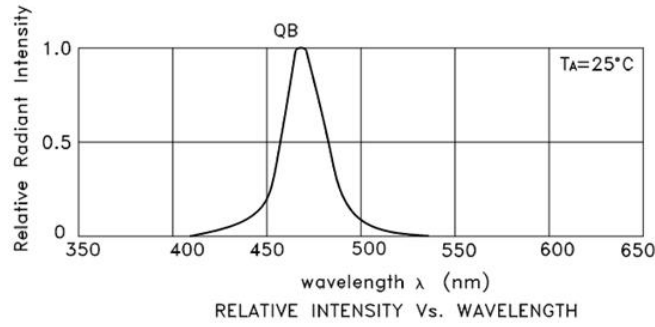
Absolute Maximum Ratings at TA=25°C

Parameter	Blue	Green	Units
Power dissipation	135	135	mW
DC Forward Current	30	30	mA
Peak Forward Current [1]	140	140	mA
Reverse Voltage	5	5	V
Operating/Storage Temperature			

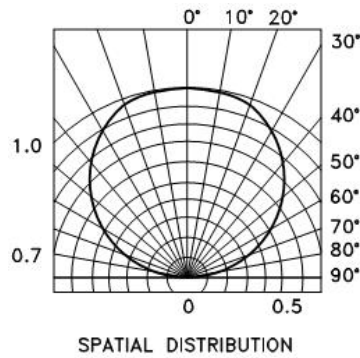
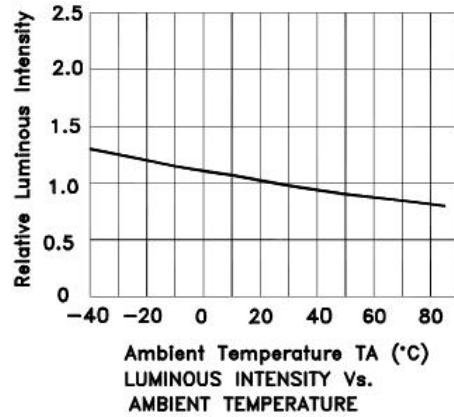
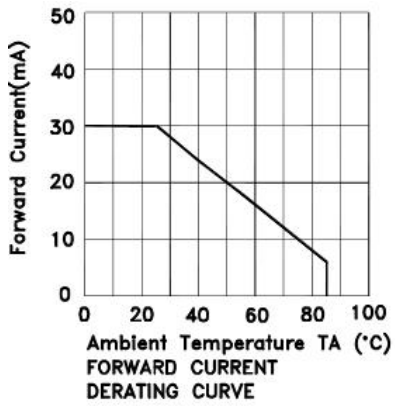
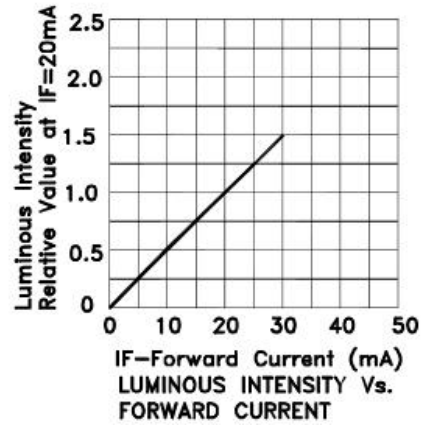
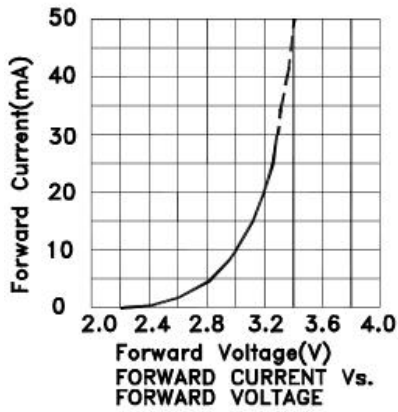
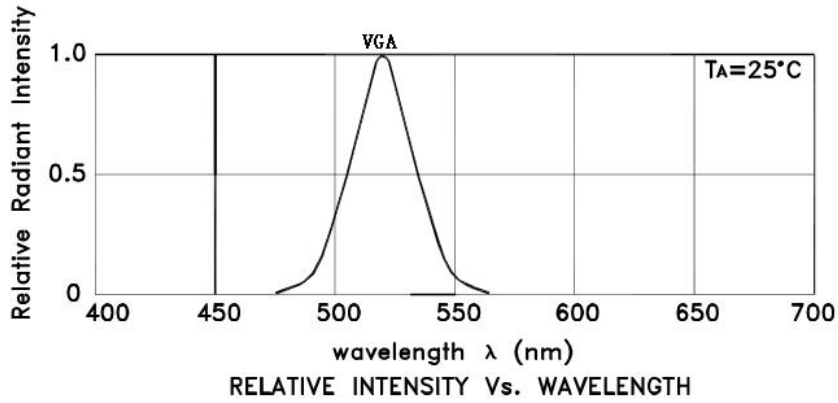
Note:

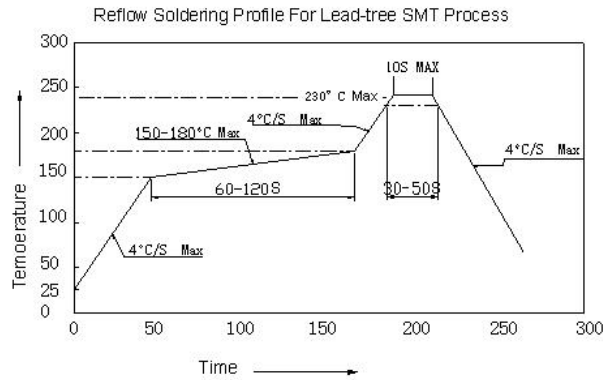
1. 1/10 Duty Cycle, 0.1ms Pulse Width.

Blue

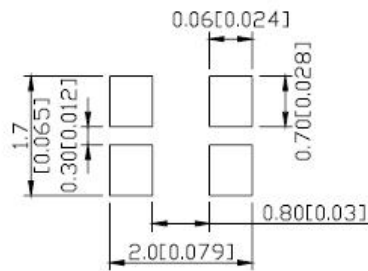
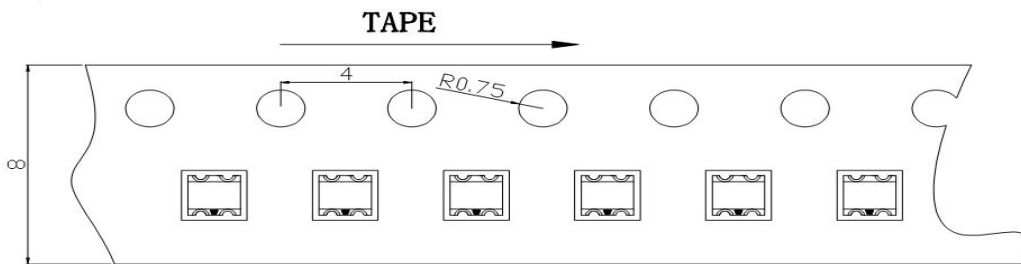


Green




NOTES:

1. We recommend the reflow temperature 245° c(± 5) The maximum soldering temperature should be limited to 280° c
2. Don't cause stress too the epoxy resin while it is exposed to high temperature.
3. Numbe of reflow process shall be 2 time or less.

Recommended Soldering Pattern
(Units : mm)

Tape Specifications
(Units : mm)

Package: 4000 pcs/reel
Remarks:

If special sorting is required (e.g. binning based on forward voltage, luminous intensity / luminous flux or wavelength), the typical accuracy of the sorting process is as follows:

1. Wavelength: +/-1nm
2. Luminous Intensity / Luminous Flux: +/-15%
3. Forward Voltage: +/-0.1V

Note: Accuracy may depend on the sorting parameters.