

## GHB-PLCC-CW2

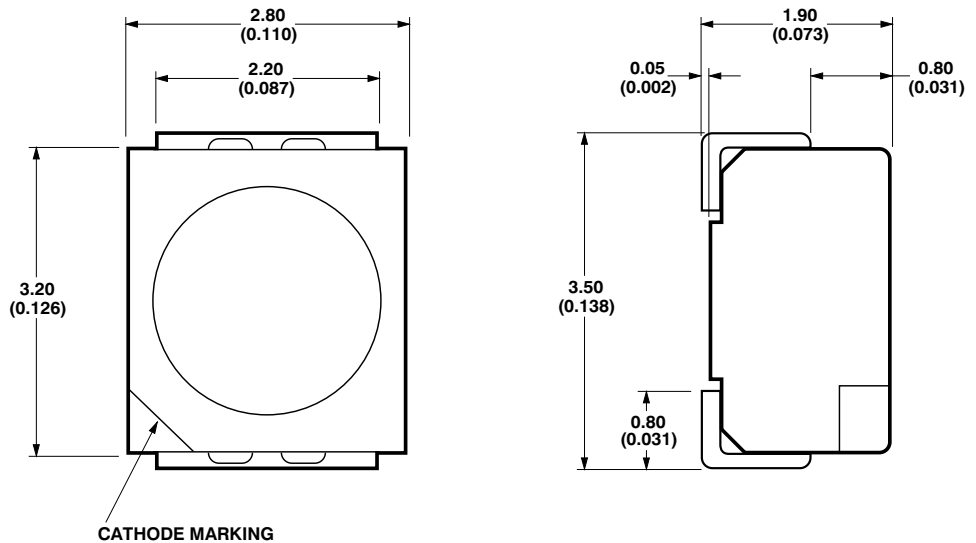
### Description

This family of SMT LEDs is packaged in the industry standard PLCC-2 package. These SMT LEDs have high reliability performance and are designed to work under a wide range of environmental conditions. This high reliability feature makes them ideally suited to be used under harsh interior automotive as well as interior signs application conditions.

To facilitate easy pick & place assembly, the LEDs are packed in EIA-compliant tape and reel. Every reel will be shipped in single intensity and color bin.

These LEDs are compatible with IR solder reflow process.

The super wide viewing angle at 120° makes these LEDs ideally suited for panel, push button, or general backlighting in automotive interior, office equipment, industrial equipment, and home appliances.



NOTE: ALL DIMENSIONS IN MILLIMETERS (INCHES).

## Device Selection Guide

Color	Part Number	Min. $I_v$ @ 20 mA	Typical $I_v$ @ 20 mA
White	GHB-PLCC-CW2	100	300

**Note:**

1. The luminous intensity  $I_v$ , is measured at the mechanical axis of the lamp package. The actual peak of the spatial radiation pattern may not be aligned with this axis.

### Absolute Maximum Ratings at $T_A = 25^\circ\text{C}$

Parameters	InGaN
DC Forward Current [1]	30 mA
Peak Forward Current [2]	90 mA
Power Dissipation	114 W
Reverse Voltage	5 V
Junction Temperature	110°C
Operating Temperature	-55°C to +100°C
Storage Temperature	-55°C to +100°C

**Notes:**

1. Derate linearly as shown in Figure 5.
2. Duty factor = 10%, frequency = 1 kHz.

### Electrical Characteristics at $T_A = 25^\circ\text{C}$

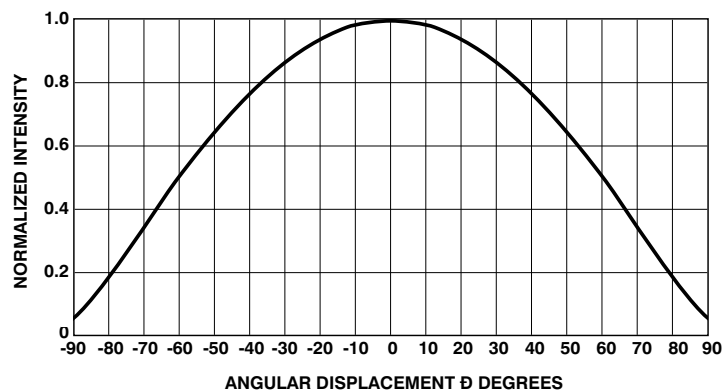
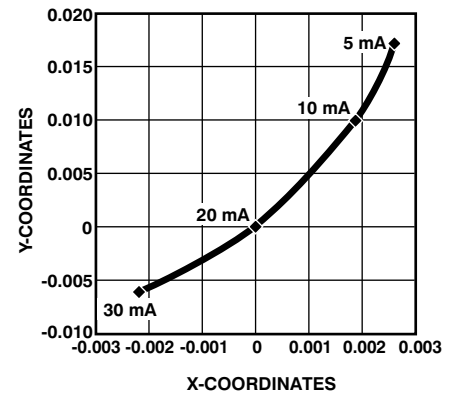
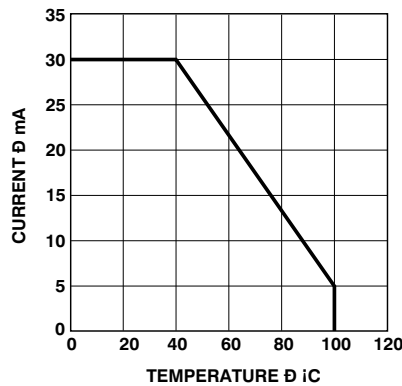
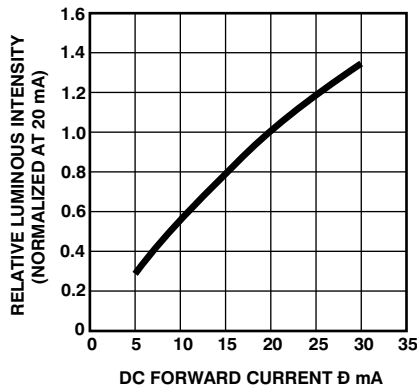
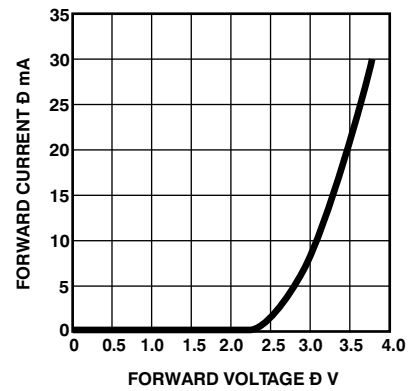
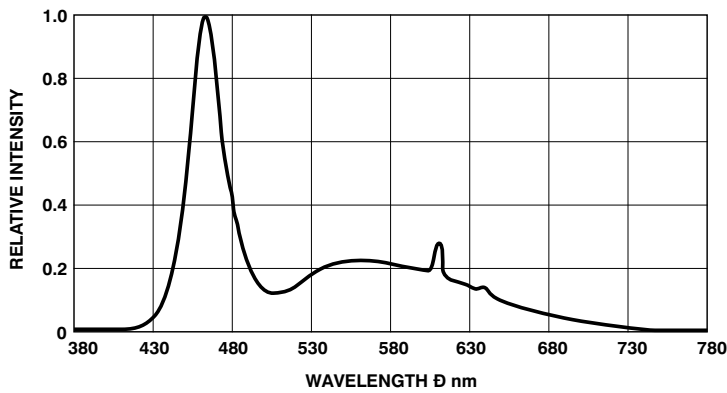
Color	Forward Voltage, $V_F$ (Volts) @ $I_F = 20$ mA		Reverse Voltage, $V_R$ @ 10 A	Thermal Resistance
	Typ.	Max.	Min.	$R_{JP}$ ( C/W)
White	3.5	4.3	5	280

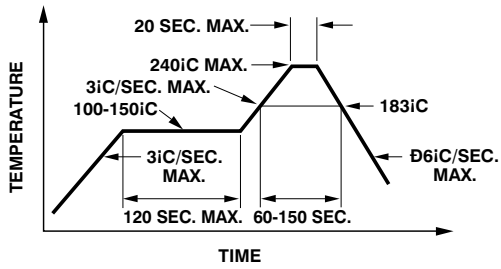
### Optical Characteristics at T<sub>A</sub> = 25°C

Color	Typical Chromaticity Coordinates [1]		Viewing Angle 2 <sub>1/2</sub> [2] (degrees)	Luminous Efficacy η <sub>v</sub> [3] (lm/W)	Luminous Intensity/ Total Flux I <sub>v</sub> (mcd)/ η <sub>v</sub> (mlm)
	x	y	Typ.	Typ.	Typ.
White	0.31	0.31	120	260	0.45

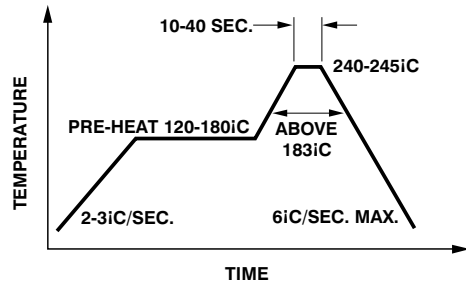
**Notes:**

1. The chromaticity coordinates are derived from the CIE 1931 Chromaticity Diagram and represent the perceived color of the device.
2. 1/2 is the off-axis angle where the luminous intensity is 1/2 the peak intensity.
3. Radiant intensity, I<sub>e</sub> in watts/steradian, may be calculated from the equation I<sub>e</sub> = η<sub>v</sub> I<sub>v</sub>, where I<sub>v</sub> is the luminous intensity in candelas and η<sub>v</sub> is the luminous efficacy in lumens/watt.

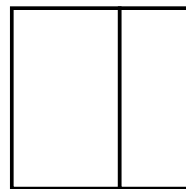
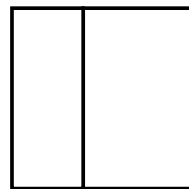
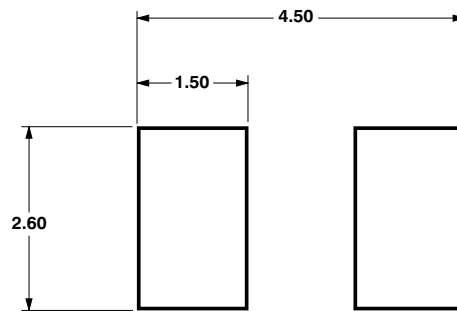




Recommended reflow soldering profile



Recommended wave soldering profile



SOLDER RESIST