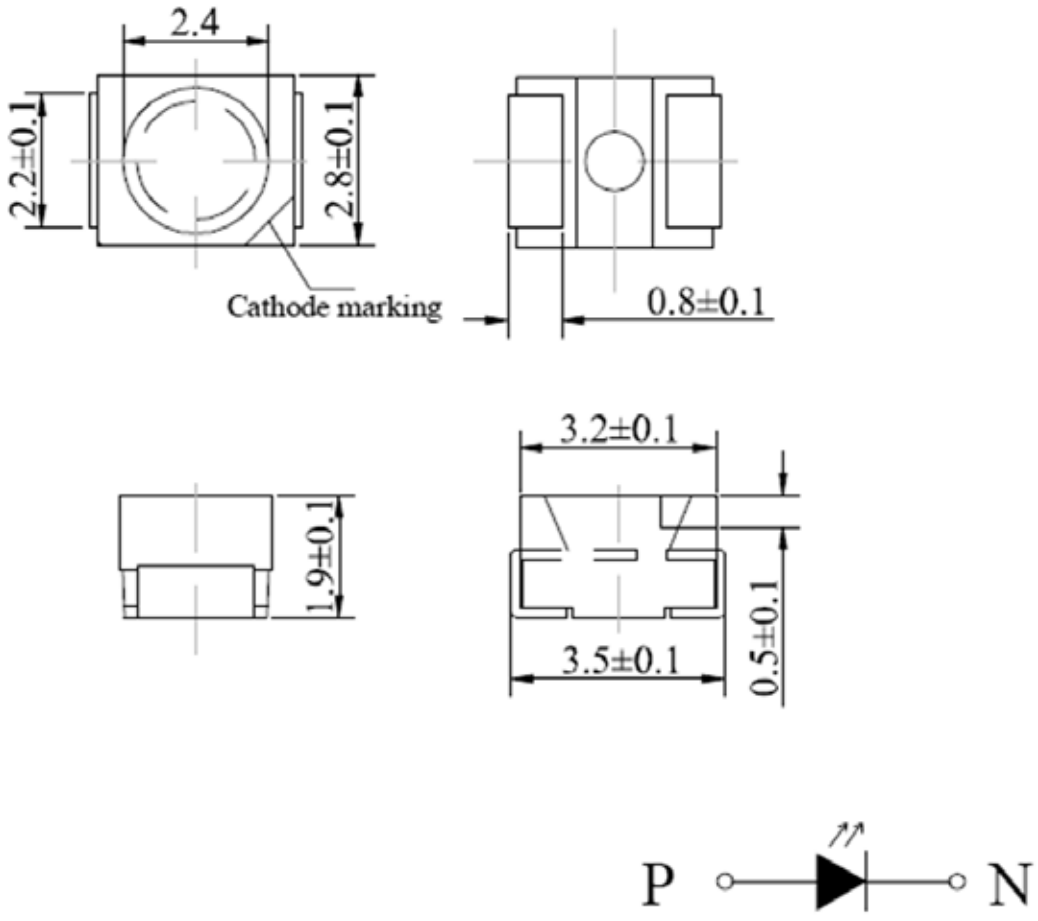
SPECIFICATION CSPA1311CW2C

PACKAGE OUTLINES



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

Part Number	Chip Material	Color of Emission	Lens Type	Viewing Angle
CSPA1311CW2C	InGaN	White	Water Clear	120°

RoHS Compliant Lead Free

ABSOLUTE MAXIMUM RATINGS (TA=25°C)

Parameter	Symbol	Max Rating	Unit
Forward Current	IF	30	mA
Reverse Voltage	VR	5	V
Operating Temperature Range	TOP	-40~+80	°C
Storage Temperature Range	TSTG	-40~+100	°C
Peak Pulsing Current (1/8 duty f = 1KHz)	IFP	100	mA
Soldering Temperature	TSOL	Max 265°C for 10 sec Max	

OPTICAL-ELECTRICAL CHARACTERISTICS (TA=25°C)

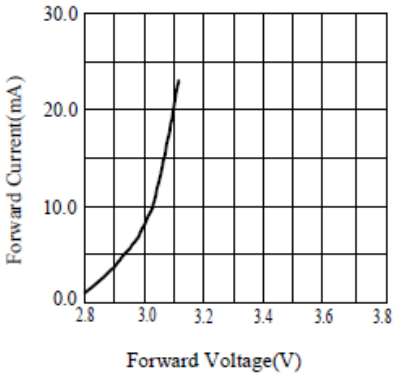
Parameter	Symbol	Test Condition	Value			Unit
			Min	Typ	Max	
Luminous Intensity	Iv	IF = 20mA	2500	2800	-	Mcd
Forward Voltage	VF	IF = 20mA	-	3.1	3.4	V
Viewing Angle at 50% Iv	2θ1/2	IF = 20mA	-	120	-	Deg
Chromaticity Coordinate	X	IF = 20mA	0.32	-	0.33	-
Chromaticity Coordinate	Y	IF = 20mA	0.34	-	0.36	-
Correlated Color Temperature	CCT	IF = 20mA	5000	-	7000	k

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

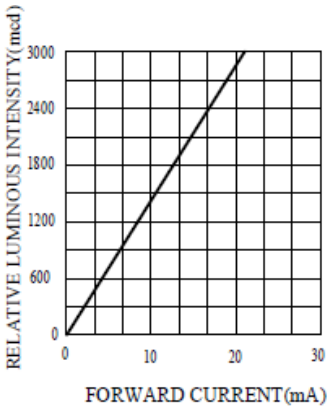
RoHS Compliant Lead Free

ChromeLED Corp. reserves the right to make changes at any time in order to supply the best product possible. The most current version of this document will always be available at: www.chromeled.com

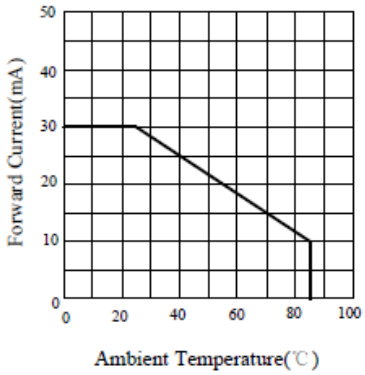
OPTICAL CHARACTERISTIC CURVES



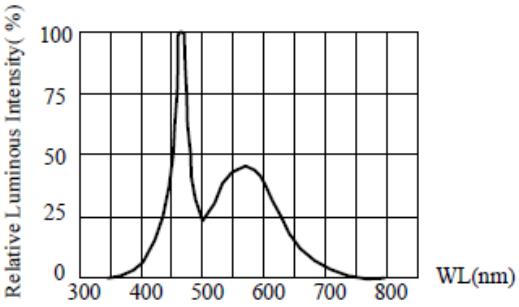
Forward Current Vs.
Forward Voltage



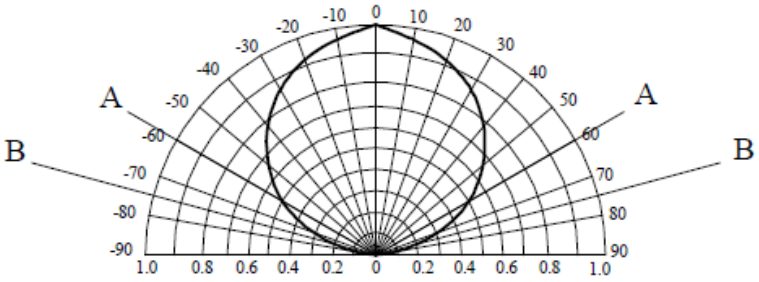
Forward Current vs.
Relative Luminous Intensity



Ambient Temperature
Vs. Forward Current



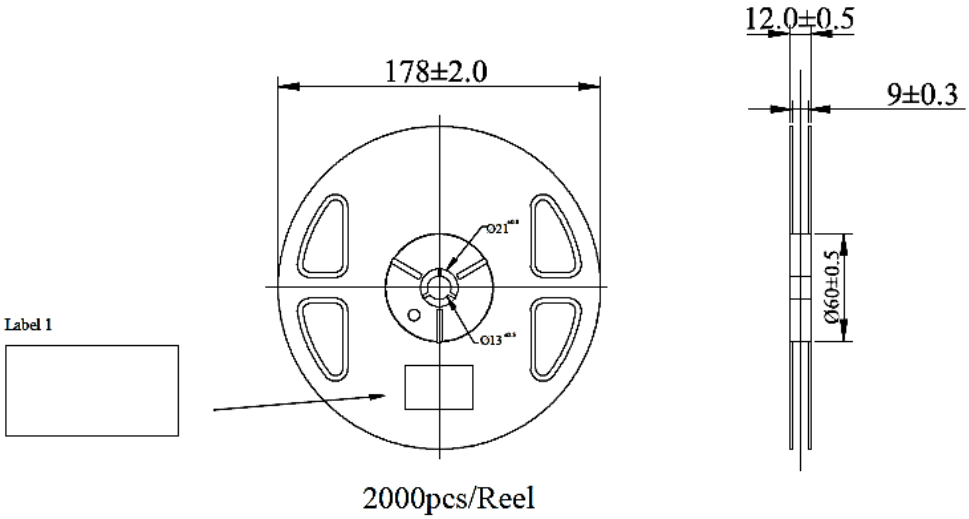
Relative Luminous Intensity
Vs. Wavelength



Radiation Diagram

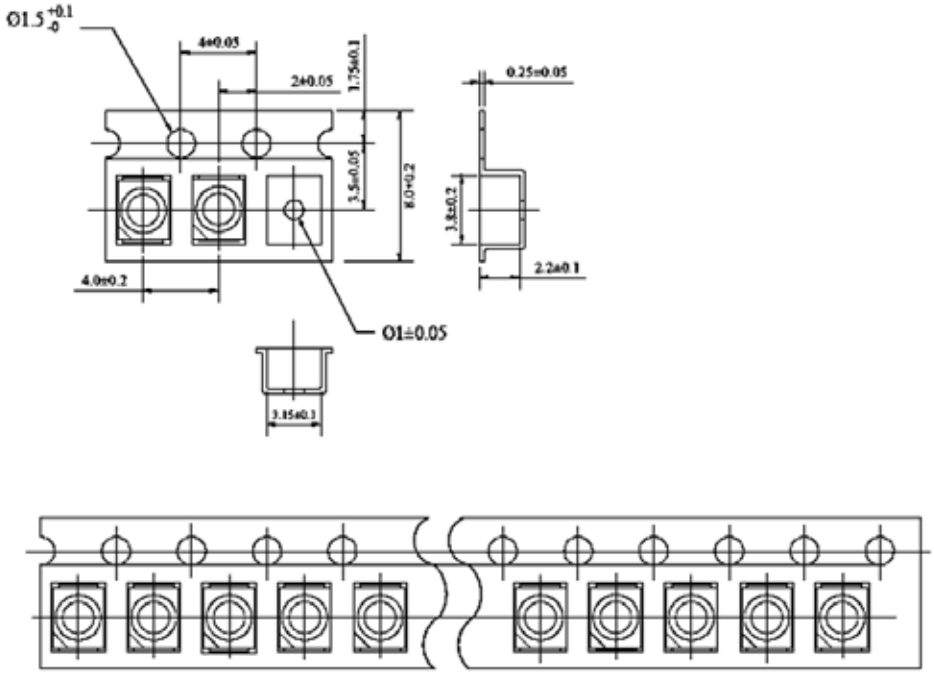
PACKAGING SPECIFICATION

Reel Dimensions:



2000pcs/Reel

Tape Dimensions:



SOLDERING CONDITIONS

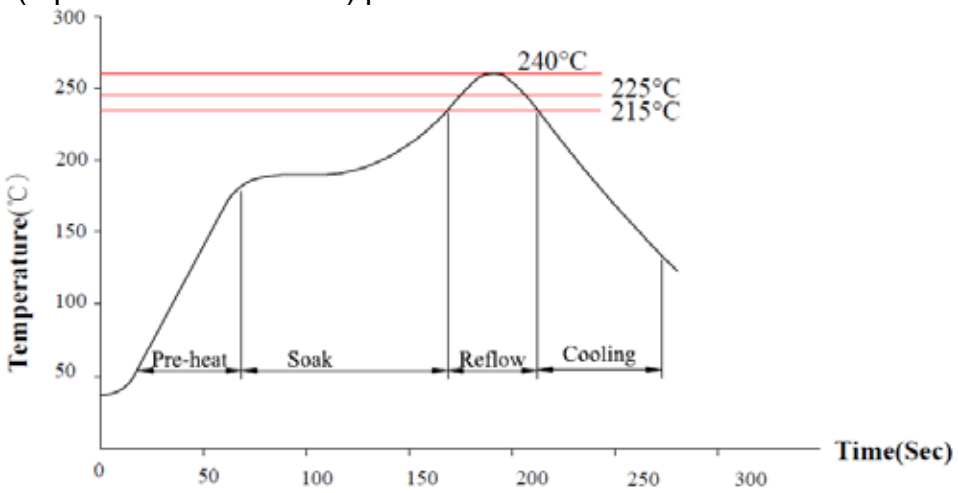
RECOMMENDED SOLDERING CONDITIONS

A. Manual soldering with a soldering iron

- Use of a soldering iron of less than 25 watts is recommended. The iron temperature must be kept below 315ºC and soldering time no more than 2 seconds.
- The epoxy resin of a SMD LED should not contact the tip of the soldering iron.
- No mechanical stress should be exerted on the resin portion of the LED during soldering.
- Handling of LED should be done only when the package has been cooled down to below 40ºC or less. This is to prevent the LED from failures due to thermal-mechanical stress during handling.

B. Reflow soldering

- Temperature (top surface of the LED) profile:



Solder = Sn63-Pb37	Solder = Lead-Free
Average ramp-up rate = 4°C/sec. max.	Average ramp-up rate = 4°C/sec. max
Preheat temperature: 100°~150°C	Preheat temperature: 150~200°C
Preheat time = 100 sec. max.	Preheat time = 100 sec. max.
Ramp-down rate = 6°C/sec. max.	Ramp-down rate = 6°C/sec. max.
Peak temperature = 230°C max.	Peak temperature = 250°C max.
Time within 5°C of actual peak temperature = 8 sec. max.	Time within 5°C of actual peak temperature = 8 sec. max.
Duration above 183°C is 80 sec. max.	Duration above 217°C is 80 sec. max.