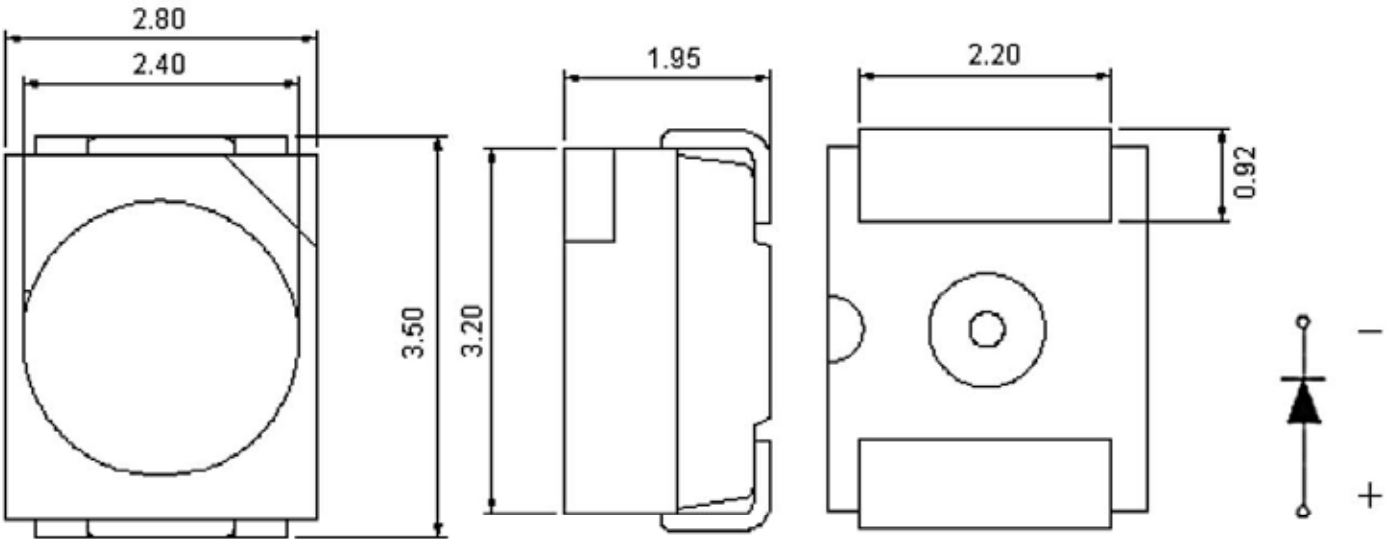


SPECIFICATION **CSP1311CW4C**
PACKAGE OUTLINES


- Notes:
1. All dimensions are in millimeters (inches).
 2. Tolerance is $\pm 0.25\text{mm}$ (0.01") unless otherwise noted.
 3. Specifications are subject to change without notice.

Part Number	Chip Material	Color of Emission	Lens Type	Viewing Angle
CSP1311CW4C	InGaN	White	Water Clear	120°



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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~+85	°C
Storage Temperature Range	TSTG	-40~+100	°C
Peak Pulsing Current (1/8 duty f = 1KHz)	IFP	100	mA
Soldering Temperature	TSOL	Max 260°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	2000	2500	-	Mcd
Forward Voltage	VF	IF = 20mA	-	3.2	3.5	V
Viewing Angle at 50% Iv	2θ1/2	IF = 20mA	-	120	-	Deg
Chromaticity Coordinate	X	IF = 20mA	0.30	-	0.33	-
Chromaticity Coordinate	Y	IF = 20mA	0.31	-	0.34	-
Luminous Flux	∅V	IF = 20mA	-	7.5	-	lm

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



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OPTICAL CHARACTERISTIC CURVES

Figure1. Forward Current VS. Forward Voltage

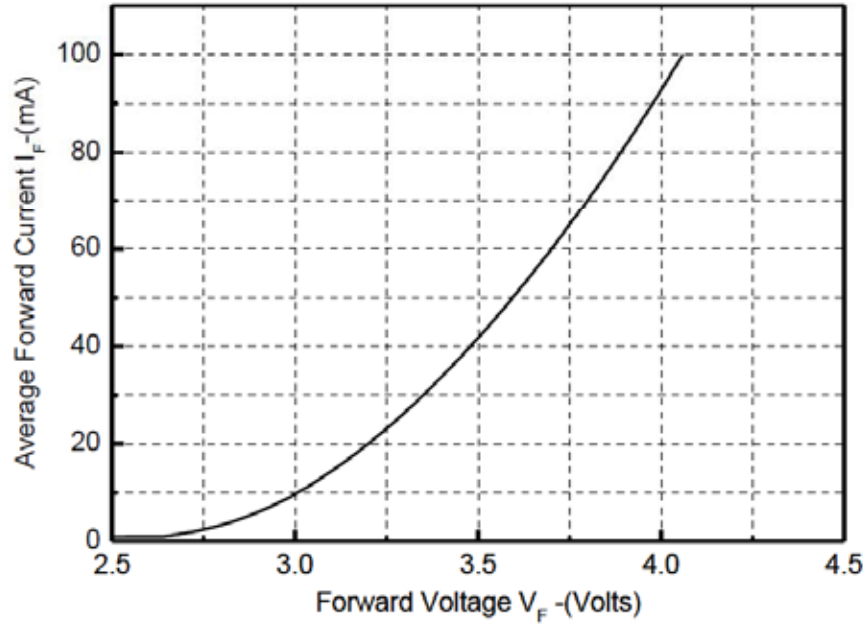
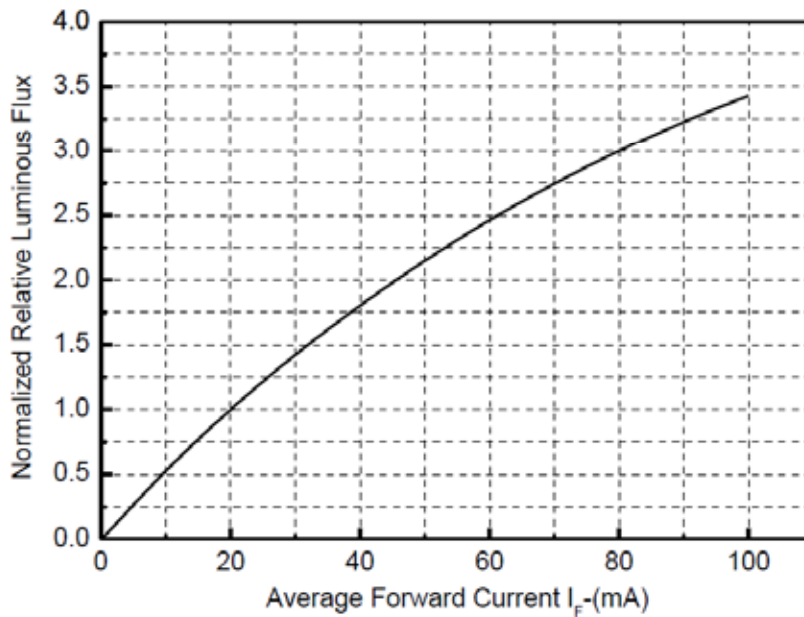


Figure2. Relative Luminous Flux VS. Forward Current



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OPTICAL CHARACTERISTIC CURVES

Figure3. Maximum Driving Forward DC Current VS. Ambient Temperature

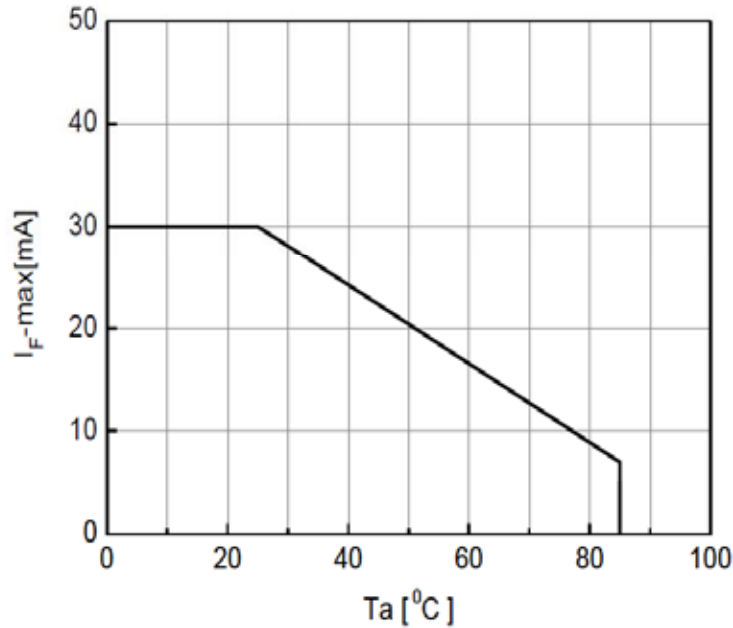
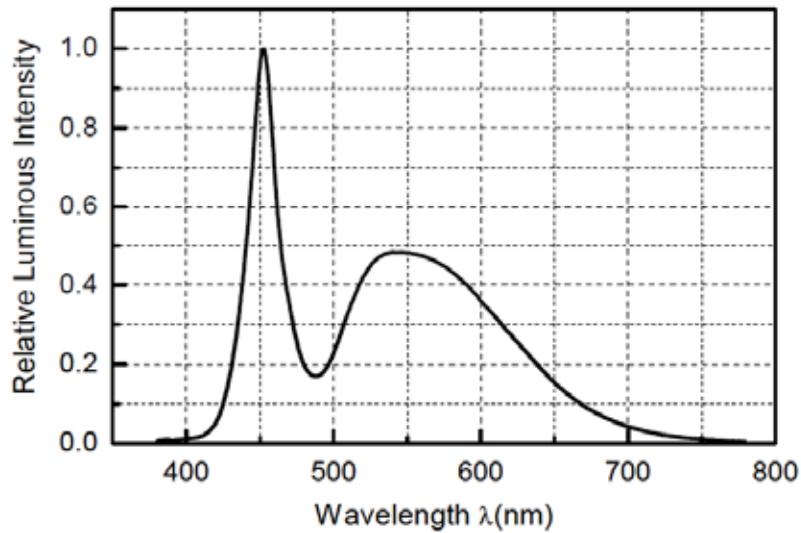


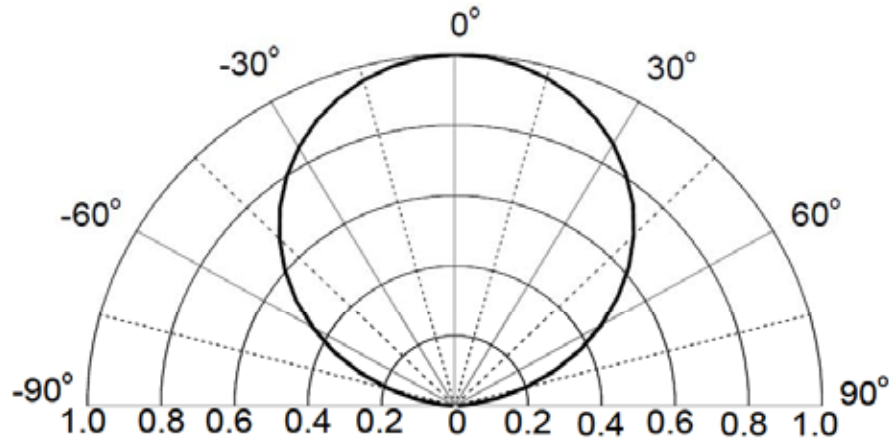
Figure4. Relative Spectral Power Distribution VS. Wavelength



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OPTICAL CHARACTERISTIC CURVES

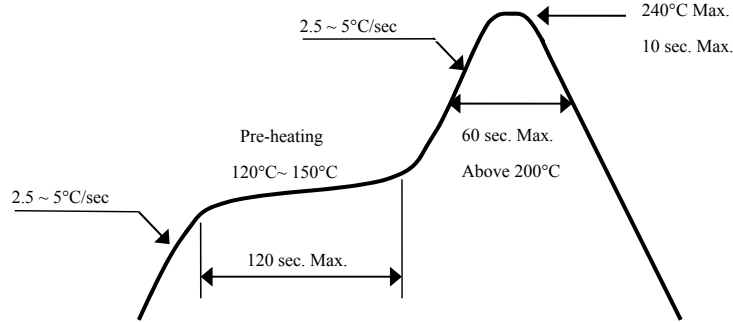
Figure5. Relative Luminosity VS. Radiation Angle



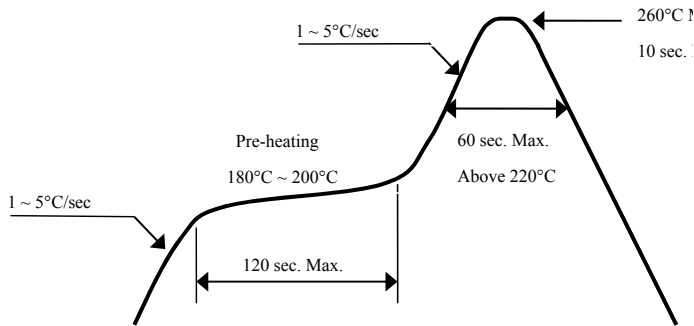
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SOLDERING CONDITIONS

Lead Solder



Lead-free Solder



- Hand Soldering

Soldering temperature	350°C	One time only
Soldering time	3 sec	

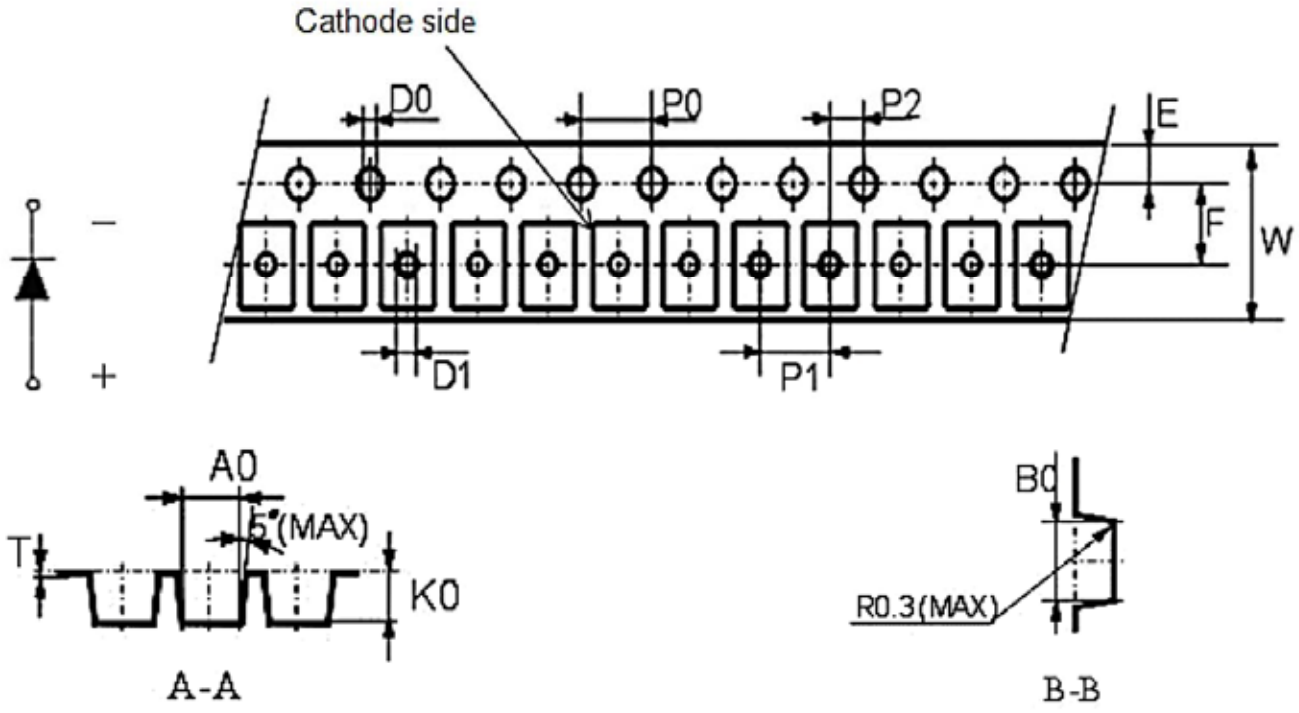
- Reflow Soldering

Reflow Soldering		
	Lead Solder	Lead-free Solder
Pre-heat	120~150°C	180~200°C
Pre-heat time	120 sec. Max.	120sec.Max.
Peak	240°C Max	260°C Max
Temperature Soldering time Condition	10sec. Max. refer to Temperature-profile A	10sec.Max.refer to Temperature-profile B (N ₂ reflow is recommended)



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PACKAGING SPECIFICATION



Unit: mm

symbol	A0	B0	K0	P0	P1	P2
Spec	3.15±0.10	3.80±0.10	2.10±0.10	4.00±0.10	4.0±0.10	2.00±0.10
symbol	W	T	E	F	D0	D1
Spec	8.00±0.1	0.235±0.05	1.75±0.10	3.5±0.10	1.50 ^{+0.10} _{-0.00}	1.00 ^{+0.10} _{-0.00}

Note:

1. All dimensions are in mm
2. Tolerance is ±0.2mm unless otherwise noted
3. 2500 pcs/Reel



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