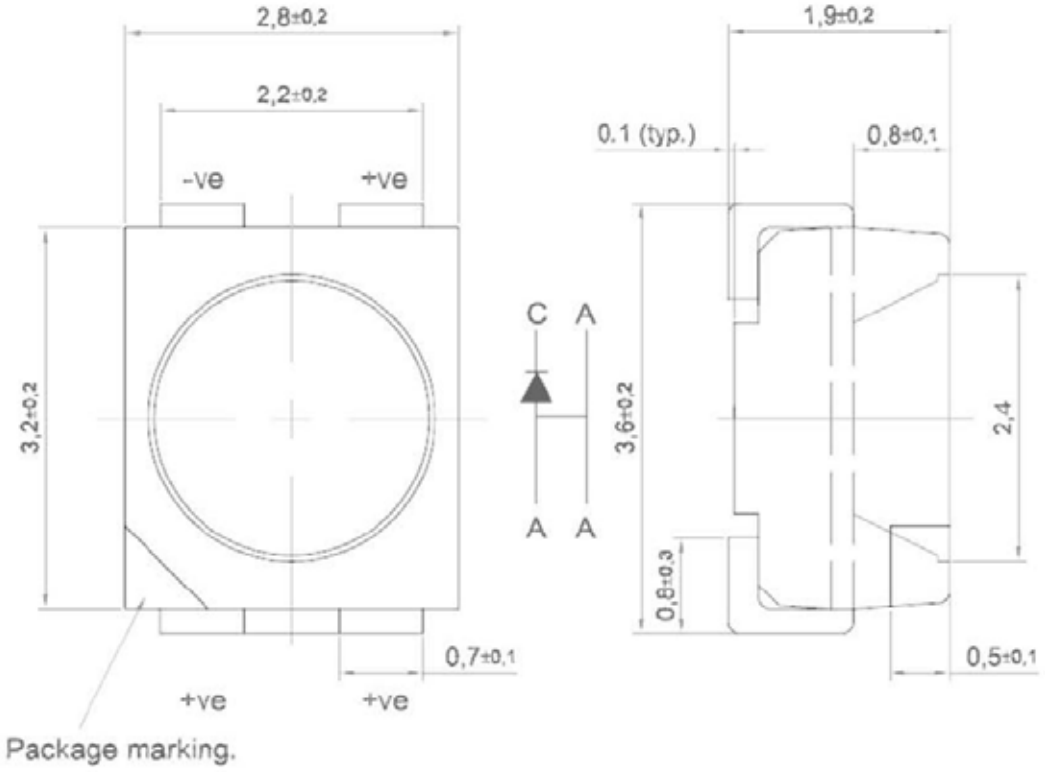


**SPECIFICATION** **CSP1311SGT2C**

**PACKAGE OUTLINES**



- Notes:
1. All dimensions are in millimeters (inches).
  2. Tolerance is  $\pm 0.25$ 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
CSP1311SGT2C	InGaN	Green	Water Clear	120°



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**ABSOLUTE MAXIMUM RATINGS**
**(TA=25°C)**

Parameter	Symbol	Max Rating	Unit
Forward Current	I <sub>F</sub>	50	mA
Reverse Current @ 5V	I <sub>R</sub>	10	μA
Power Dissipation	P <sub>d</sub>	200	mW
Operating Temperature Range	T <sub>OP</sub>	-40~+110	°C
Storage Temperature Range	T <sub>STG</sub>	-40~+110	°C
Peak Pulsing Current (1/10 duty f = 10KHz)	I <sub>FP</sub>	100	mA
Soldering Temperature	T <sub>SOL</sub>	Max 260°C for 5 sec Max	

**OPTICAL-ELECTRICAL CHARACTERISTICS**
**(TA=25°C)**

Parameter	Symbol	Test Condition	Value			Unit
			Min	Typ	Max	
Luminous Intensity	I <sub>v</sub>	I <sub>F</sub> = 30mA	1125	2850	-	mcd
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> = 30mA	-	3.3	4.0	V
Reverse Leakage Current	I <sub>R</sub>	V <sub>R</sub> = 5V	-	-	10	μA
Viewing Angle at 50% I <sub>v</sub>	2θ <sub>1/2</sub>	I <sub>F</sub> = 30mA	-	120	-	Deg
Peak Wavelength	λ <sub>P</sub>	I <sub>F</sub> = 30mA	-	515	-	nm
Dominant Wavelength	λ <sub>D</sub>	I <sub>F</sub> = 30mA	-	525	-	nm

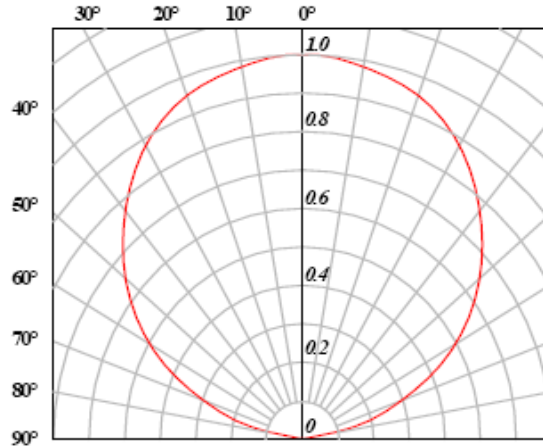
\*Tolerance of viewing angle: -10 / +5 deg.



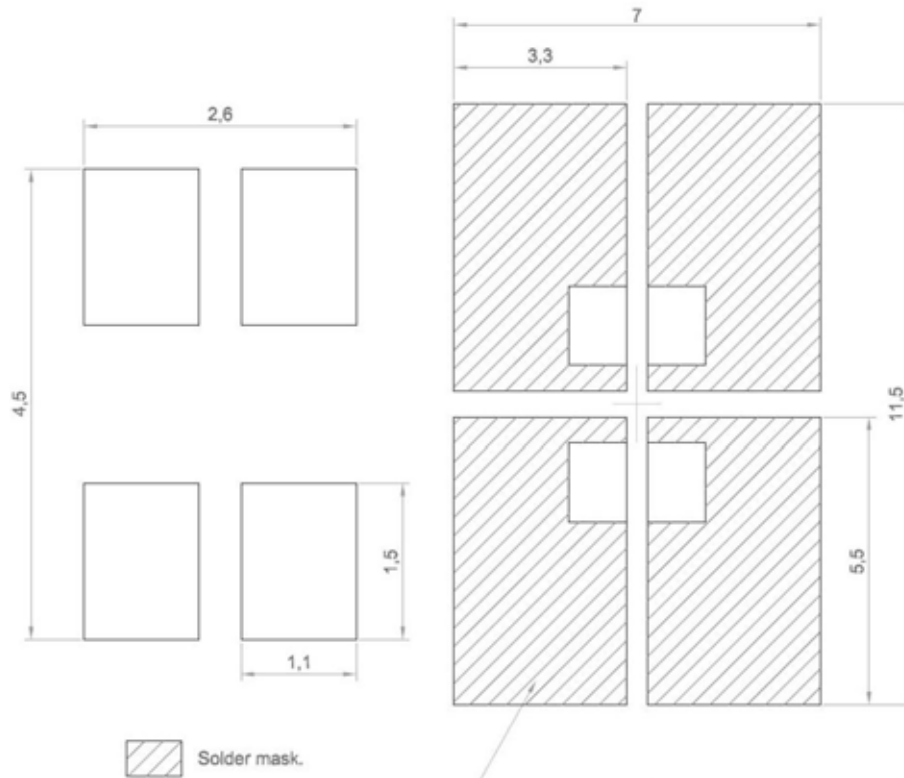
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**RADIATION PATTERN & RECOMMENDED SOLDER PAD**

**Radiation Pattern**



**Recommended Solder Pad**



 Solder mask.

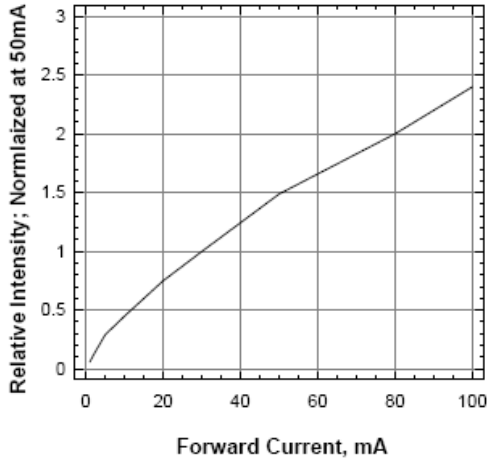
Additional Cu area for improved heat dissipation.  
Cu area >16 mm sqr per pad .  
Electrically isolated with solder mask.



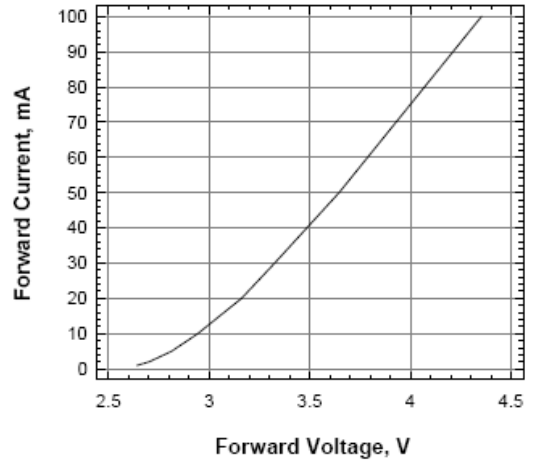
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## OPTICAL CHARACTERISTIC CURVES

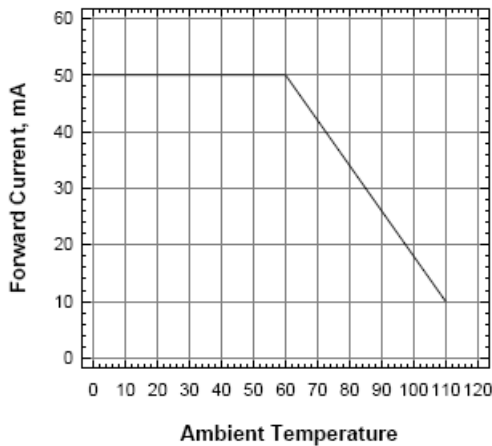
Relative Intensity Vs Forward Current



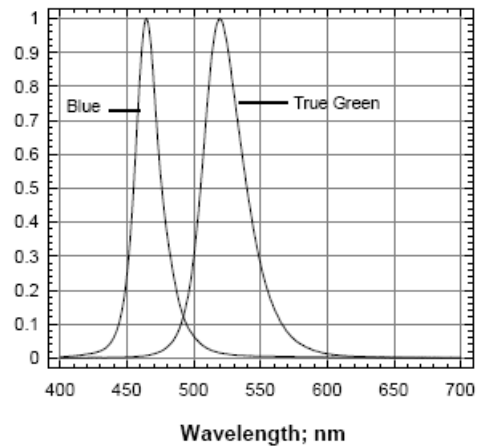
Forward Current Vs Forward Voltage



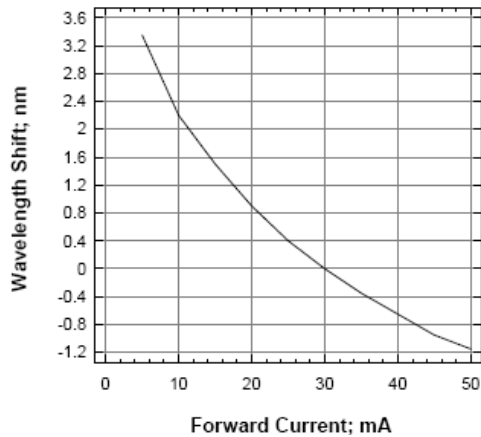
Maximum Current Vs Temperature



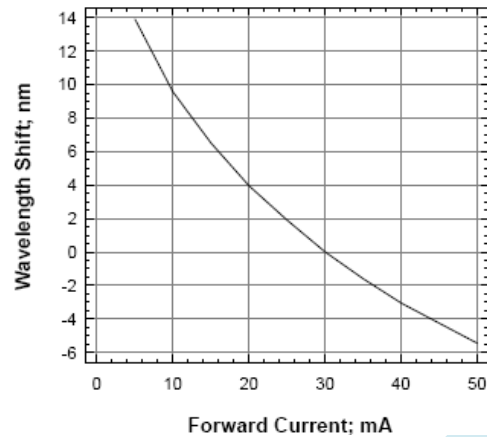
Relative Intensity vs Wavelength



Wavelength Shift vs Forward Current (True Green)



Wavelength Shift Vs Forward Current (Blue)



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# SOLDERING CONDITIONS

## RECOMMENDED Sn-PB IR-Reflow Soldering Profile

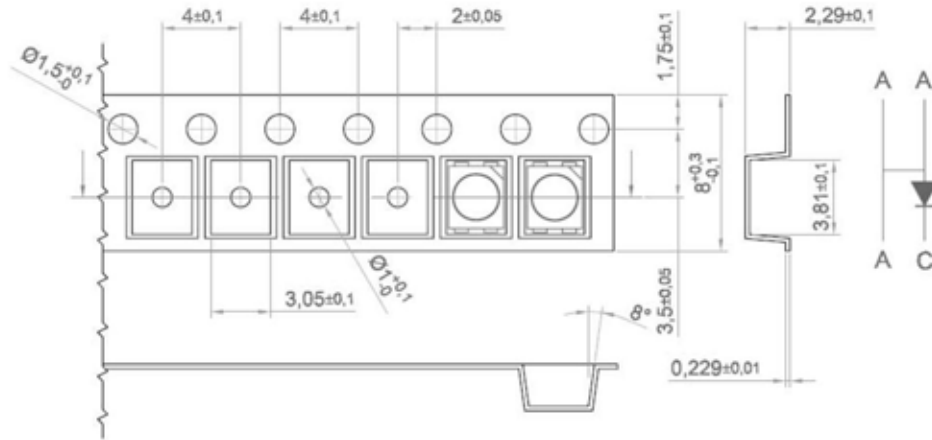


## RECOMMENDED Pb-Free Soldering Profile



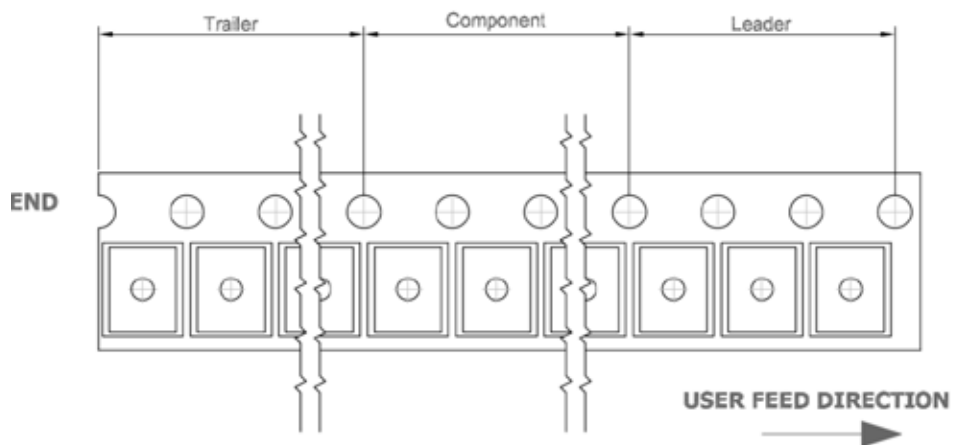
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## PACKAGING SPECIFICATION



200 mm min. for  $\varnothing 180$  reel.  
200 mm min. for  $\varnothing 330$  reel.

480 mm min. for  $\varnothing 180$  reel.  
960 mm min. for  $\varnothing 330$  reel.



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