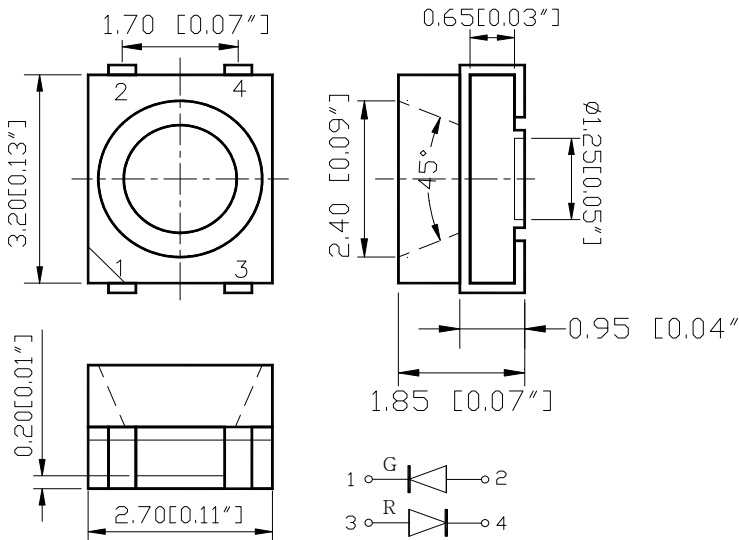
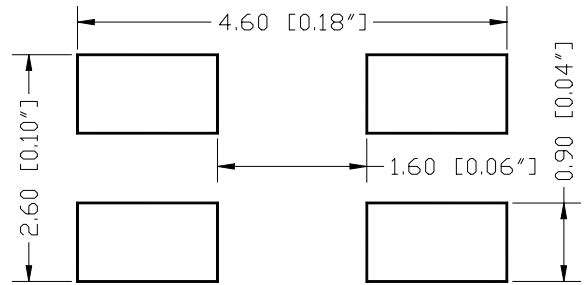


SPECIFICATION **CSP1311R2G1C**
PACKAGE OUTLINES

RECOMMEND PAD LAYOUT


ITEM	MATERIALS	
Resin (mold)	Silicon	
Lens color	Water Transparent	
Dice	AlGaInP/GaAs	
Emitted color	Red	AlGaInP/GaAs
	Green	GaP/GaP

Notes:

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

Part Number	Chip Material	Color of Emission	Lens Type	Viewing Angle
CSP1311R2G1C	InGaAlP	Red	Water Clear	120°
	GaP	Green	Water Clear	120°



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ABSOLUTE MAXIMUM RATINGS
(TA=25°C)

Parameter	Symbol	Max Rating	Unit
Forward Current	I _F	30	mA
Reverse Current @ 5V	I _R	10	μA
Power Dissipation	P _d	75	mW
Operating Temperature Range	T _{OP}	-40~+85	°C
Storage Temperature Range	T _{STG}	-40~+85	°C
Peak Pulsing Current (1/10 duty f = 10KHz)	I _{FP}	100	mA
Soldering Temperature	T _{SOL}	Max 260°C for 5 sec Max	

OPTICAL-ELECTRICAL CHARACTERISTICS
(TA=25°C)

Parameter	Symbol	Test Condition	Color	Value			Unit
				Min	Typ	Max	
Luminous Intensity	I _v	I _F = 20mA	R	80	125	-	mcd
			G	16	25		
Forward Voltage	V _F	I _F = 20mA	R	-	2.0	2.6	V
			R	-	2.0	2.4	
Viewing Angle at 50% I _v	2θ _{1/2}	I _F = 20mA	-	-	120	-	Deg
Peak Wavelength	λ _P	I _F = 20mA	R	-	640	-	nm
			G		565		
Dominant Wavelength	λ _D	I _F = 20mA	R	-	630	-	nm
			G		570		

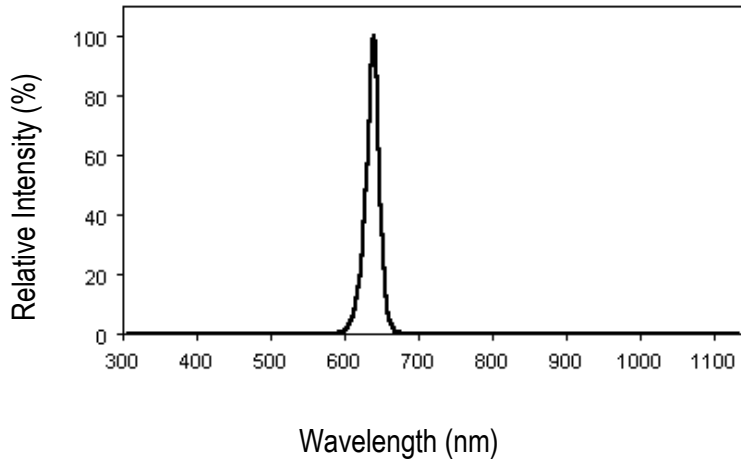
*Tolerance of viewing angle: -10 / +5 deg.



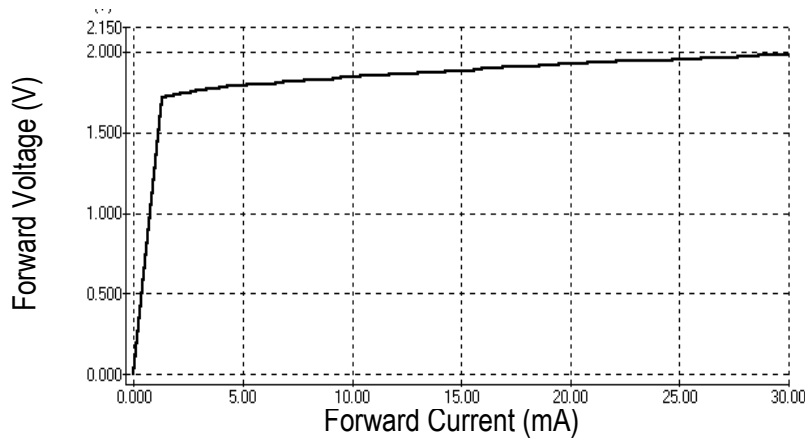
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OPTICAL CHARACTERISTIC CURVES - RED

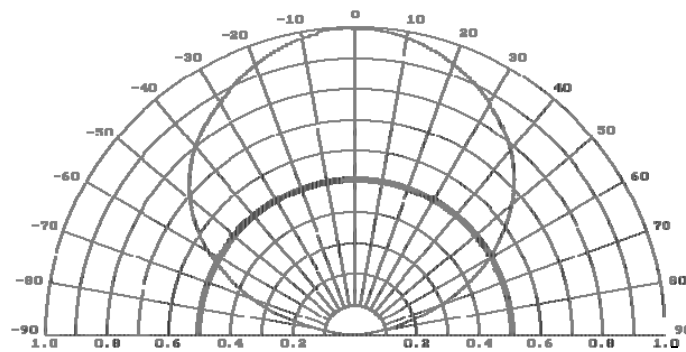
Relative Intensity vs. Wavelength



Forward Current vs. Forward Voltage



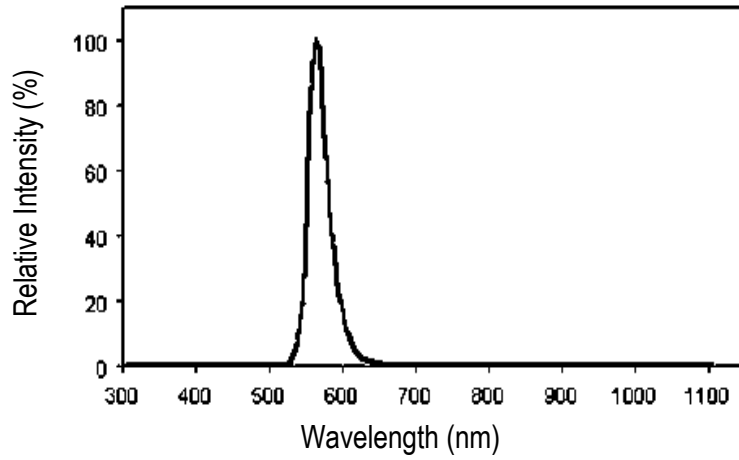
Directive Characteristics



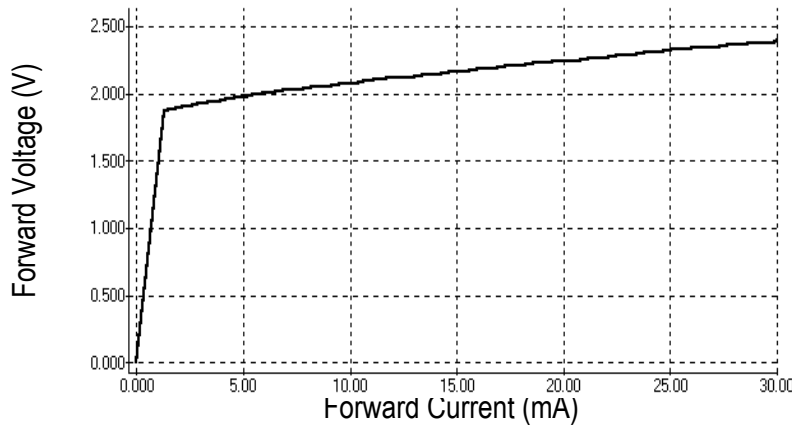
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OPTICAL CHARACTERISTIC CURVES - GREEN

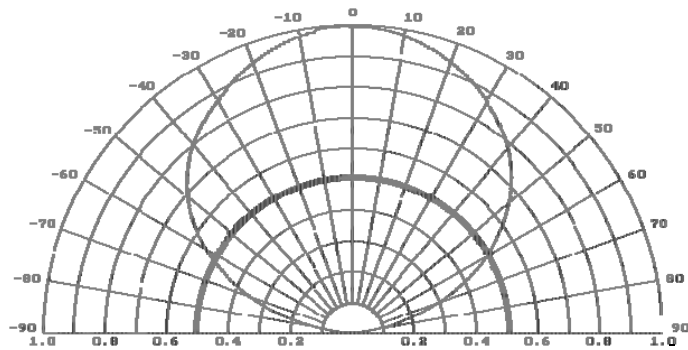
Relative Intensity vs. Wavelength



Forward Current vs. Forward Voltage



Directive Characteristics



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SOLDERING CONDITIONS

RECOMMENDED Sn-PB IR-Reflow Soldering Profile



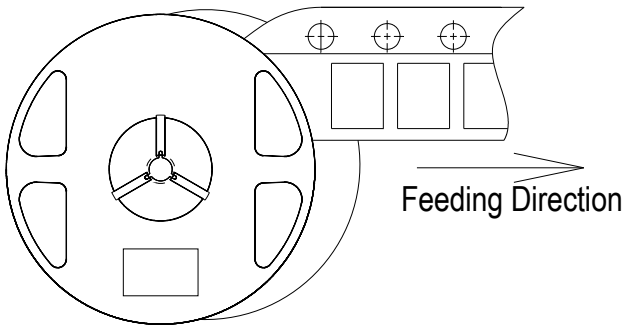
RECOMMENDED Pb-Free Soldering Profile



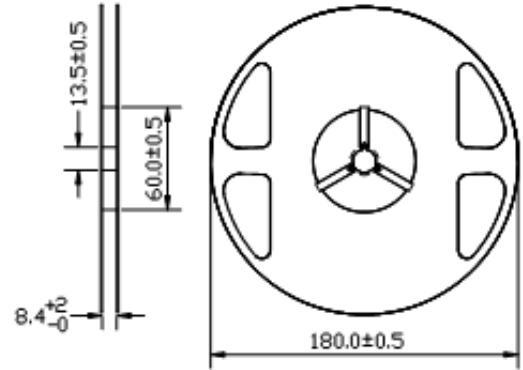
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REEL PACKAGING

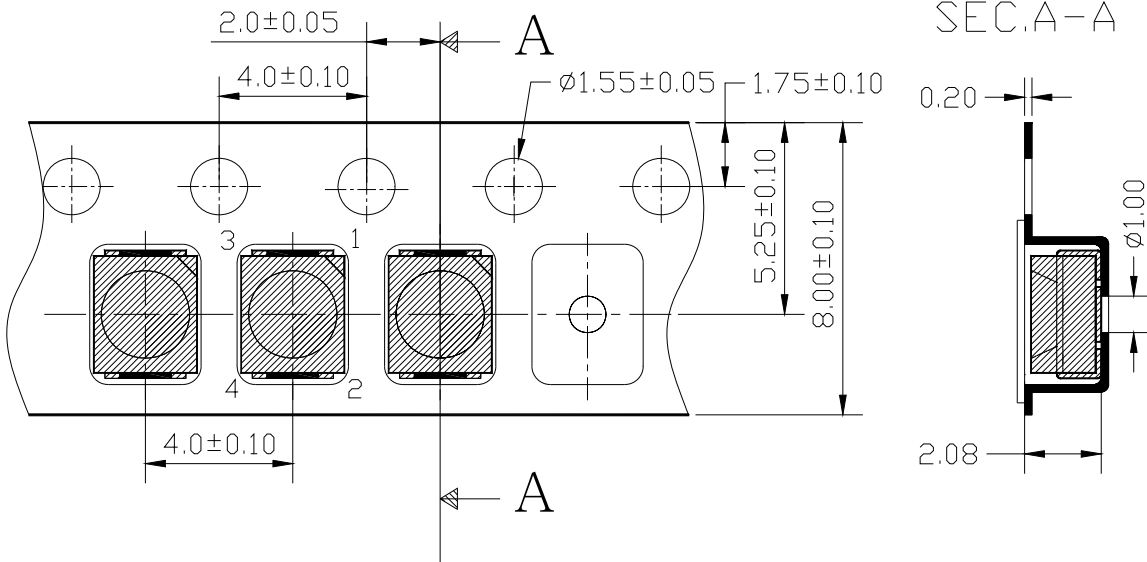
- Feeding Direction



- Dimensions of Reel (Unit: mm)



- Dimensions of Tape (Unit: mm)



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