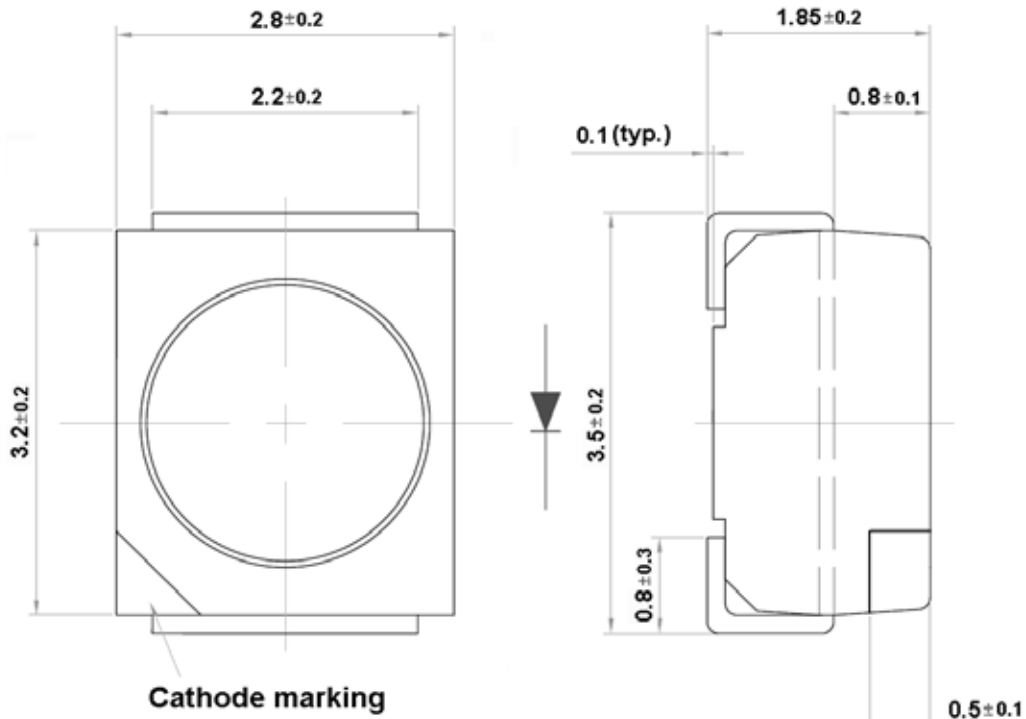


SPECIFICATION **CSP1311R6C**
PACKAGE OUTLINES

Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is ± 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
CSP1311R6C	InGaAlP	Red	Water Clear	120°



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ABSOLUTE MAXIMUM RATINGS
(TA=25°C)

Parameter	Symbol	Max Rating	Unit
Forward Current	I _F	50	mA
Reverse Current @ 5V	I _R	50	μA
Power Dissipation	P _d	140	mW
Operating Temperature Range	T _{OP}	-40~+100	°C
Storage Temperature Range	T _{STG}	-40~+100	°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)

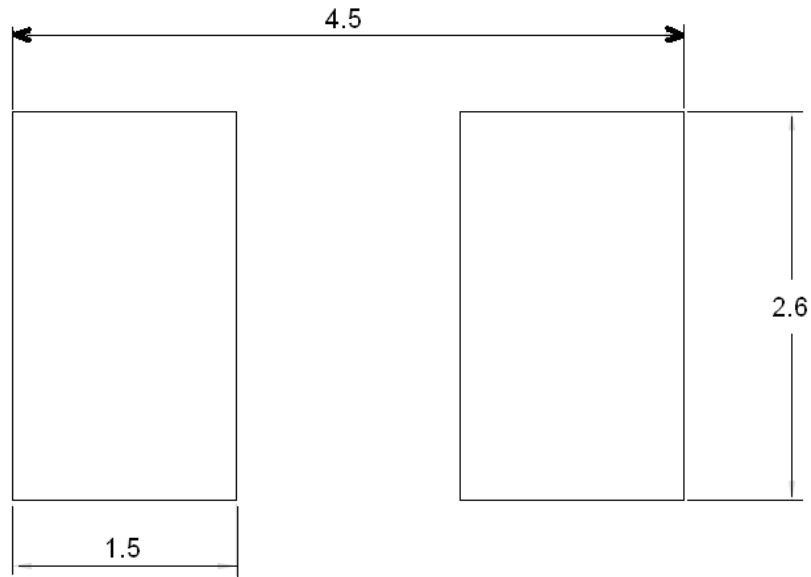
Parameter	Symbol	Test Condition	Value			Unit
			Min	Typ	Max	
Luminous Intensity	I _v	I _F = 20mA	560	1125	-	mcd
Forward Voltage	V _F	I _F = 20mA	-	2.1	2.6	V
Reverse Leakage Current	I _R	V _R = 5V	-	-	50	μA
Viewing Angle at 50% I _v	2θ _{1/2}	I _F = 20mA	-	120	-	Deg
Peak Wavelength	λ _P	I _F = 20mA	-	630	-	nm
Dominant Wavelength	λ _D	I _F = 20mA	-	625	-	nm

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



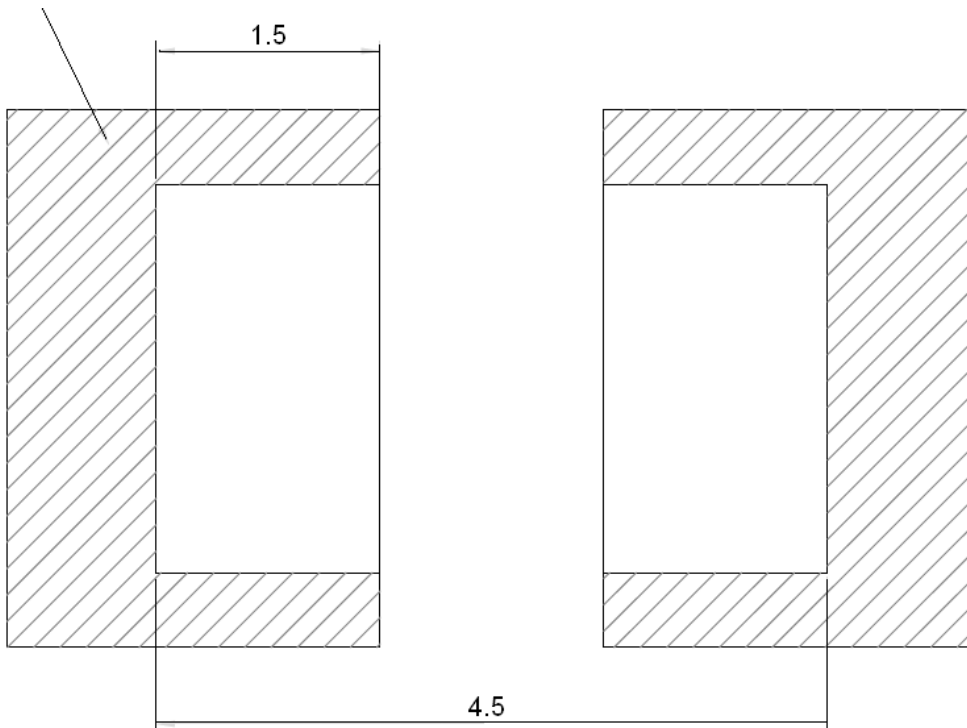
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RECOMMENDED SOLDER PAD



Additional Cu area for improved heat dissipation > 16mm sq.

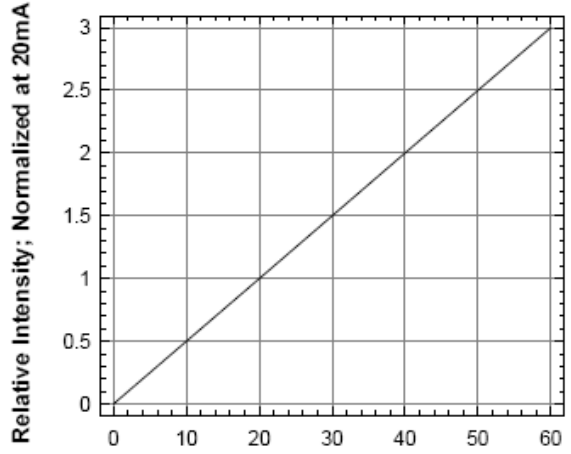
 Solder resist



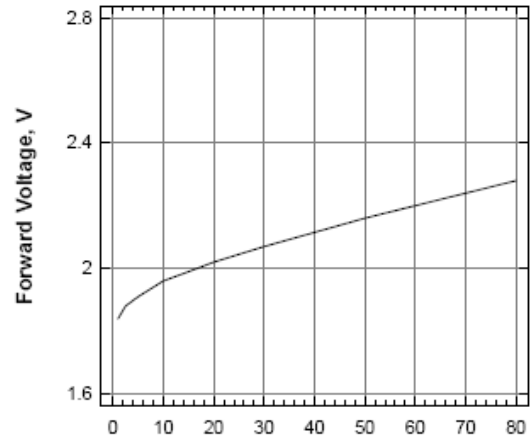
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OPTICAL CHARACTERISTIC CURVES

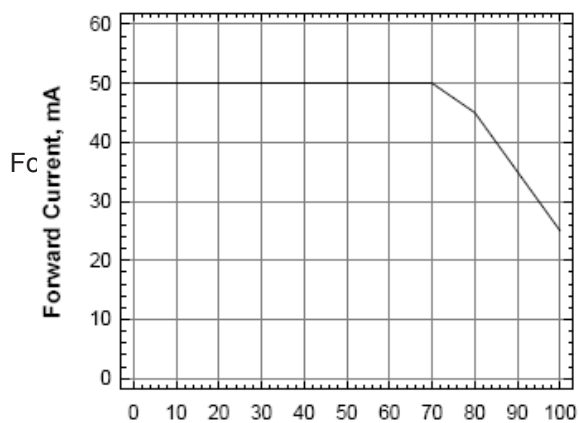
Relative Intensity Vs Forward Current



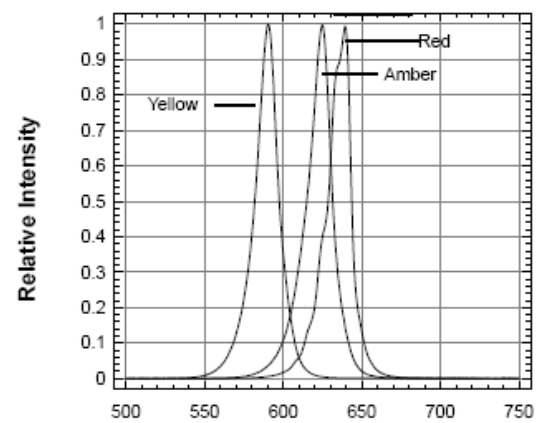
Forward Voltage Vs Forward Current



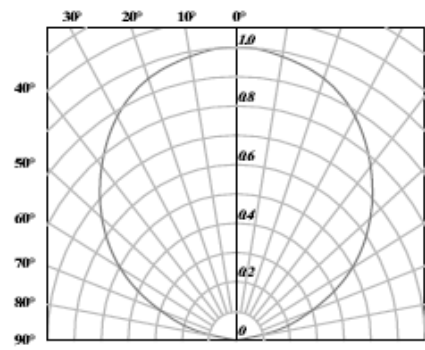
Maximum Current Vs Ambient Temperature



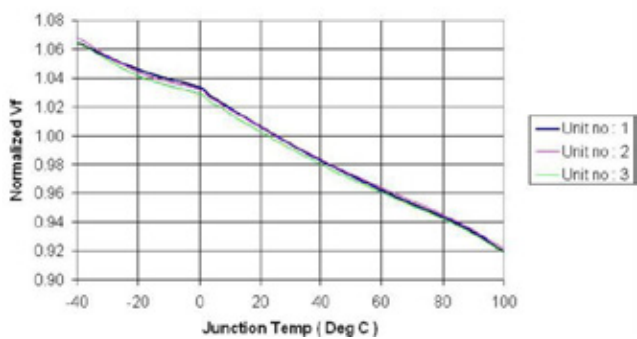
Relative Intensity Vs Wavelength



Radiation Pattern



Normalize VF Vs Junction Temperature



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SOLDERING CONDITIONS

RECOMMENDED Sn-PB IR-Reflow Soldering Profile



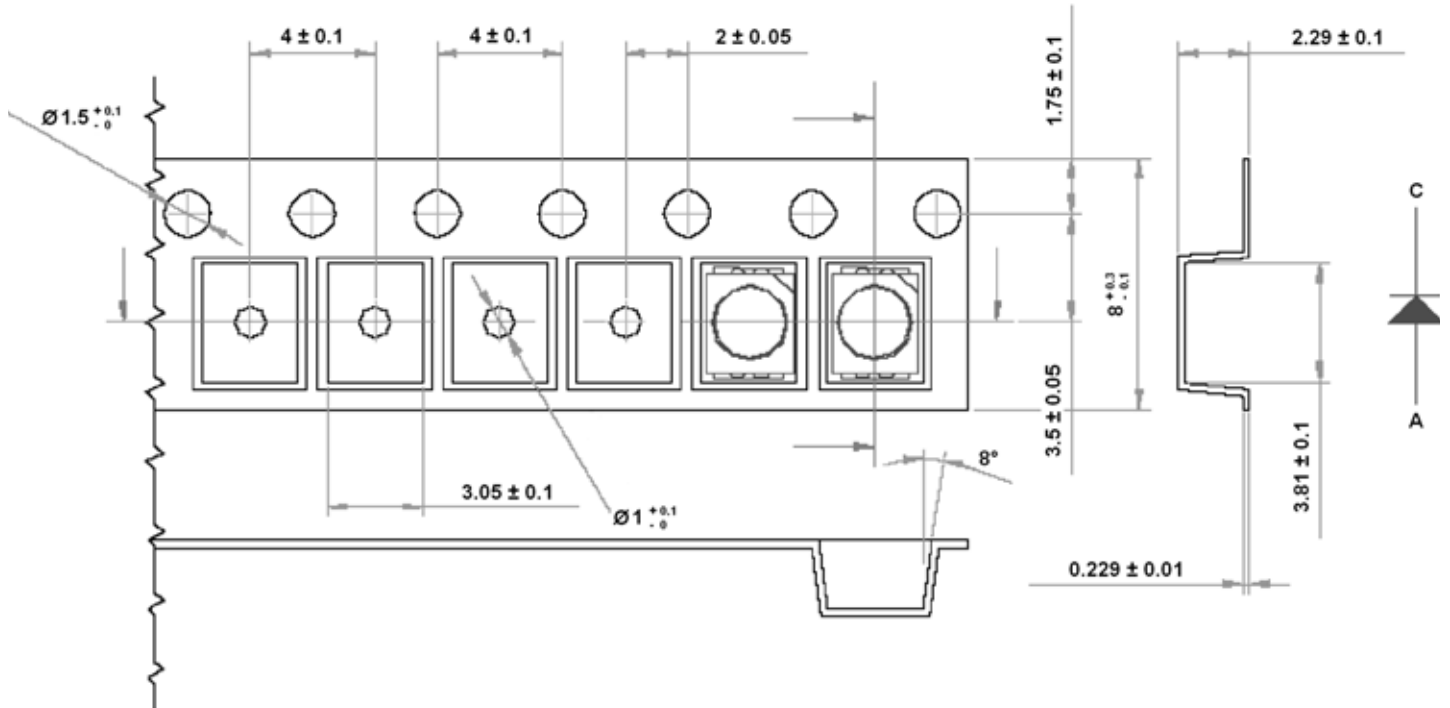
RECOMMENDED Pb-Free Soldering Profile



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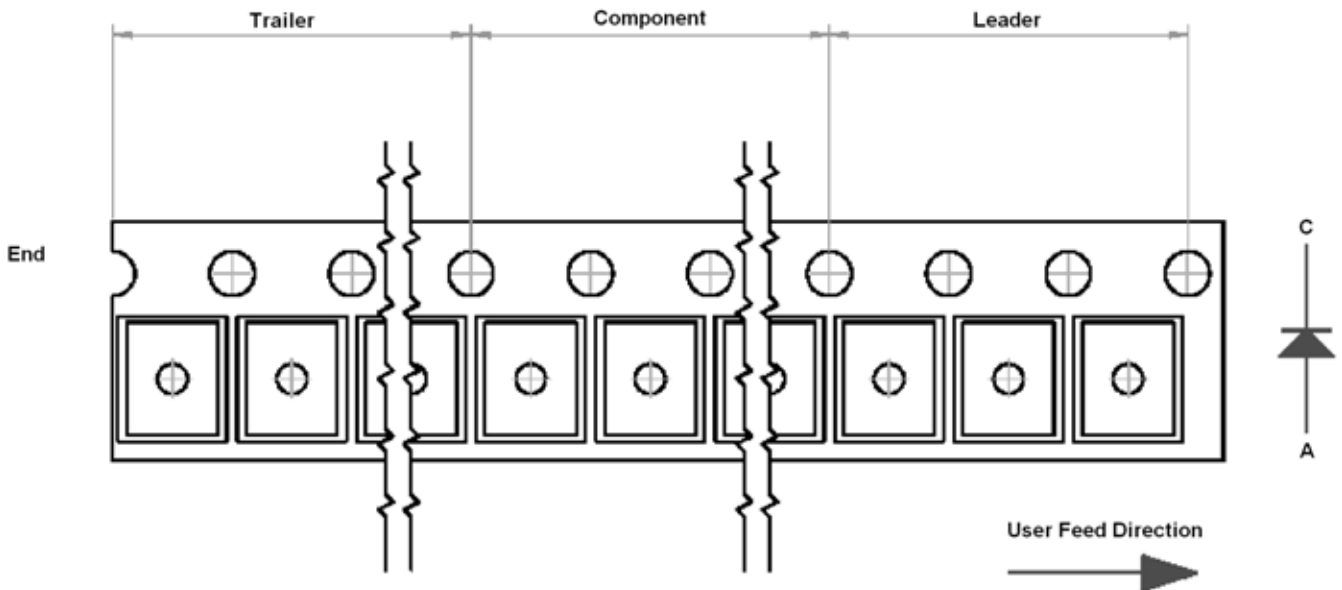
PACKAGING SPECIFICATION

TAPING SPECIFICATIONS



Notes: Reel packaging is 2000pcs/reel or 8000pcs/reel. Reel diameters are 180mm and 330mm respectively.

TAPING ORIENTATION



Notes: 1) 200mm min for $\varnothing 180$ and $\varnothing 330$ reel
 2) 480mm min for $\varnothing 180$ reel
 3) 960mm min for $\varnothing 330$ reel



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