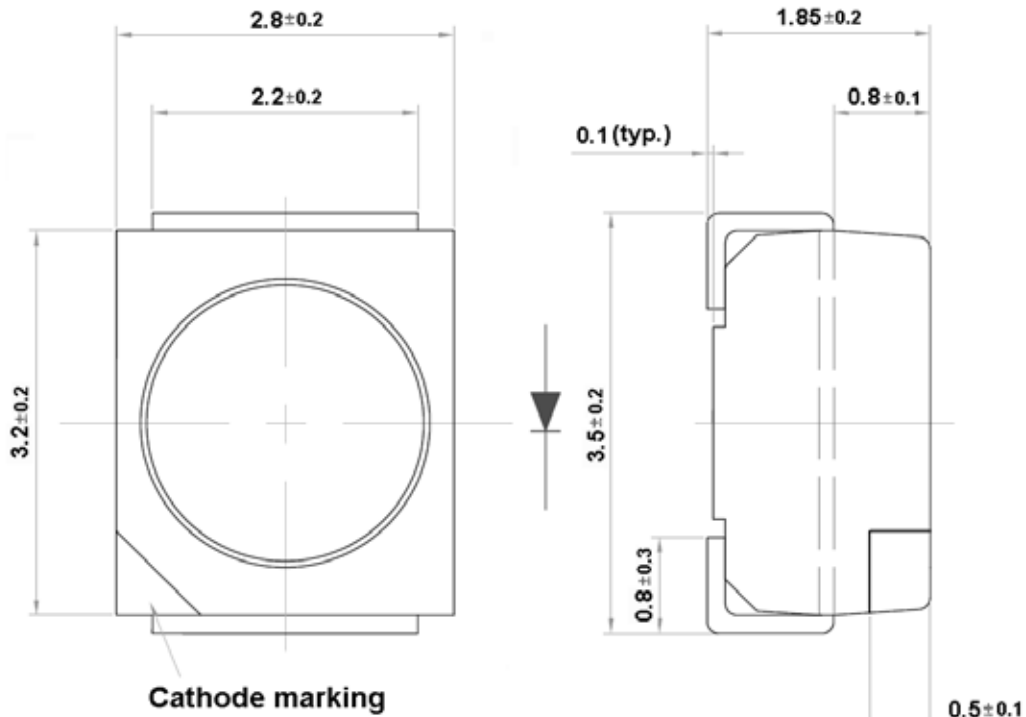


SPECIFICATION **CSP1311R4C**
PACKAGE OUTLINES

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
CSP1311R4C	InGaAlP	Red	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~+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)

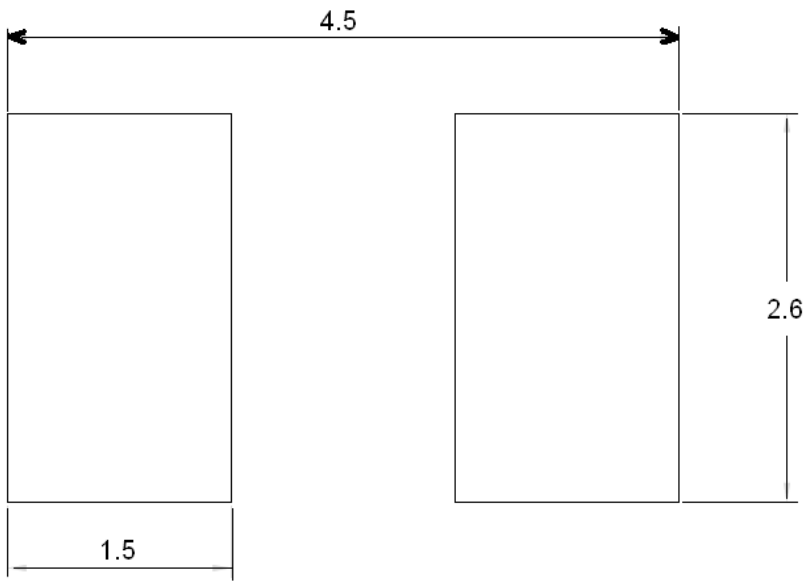
Parameter	Symbol	Test Condition	Value			Unit
			Min	Typ	Max	
Luminous Intensity	I _v	I _F = 20mA	112.5	285	-	mcd
Forward Voltage	V _F	I _F = 20mA	-	1.9	2.3	V
Reverse Leakage Current	I _R	V _R = 5V	-	-	10	μA
Viewing Angle at 50% I _v	2θ _{1/2}	I _F = 20mA	-	120	-	Deg
Peak Wavelength	λ _P	I _F = 20mA	-	630	-	nm
Dominant Wavelength	λ _D	I _F = 20mA	-	625	-	nm

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



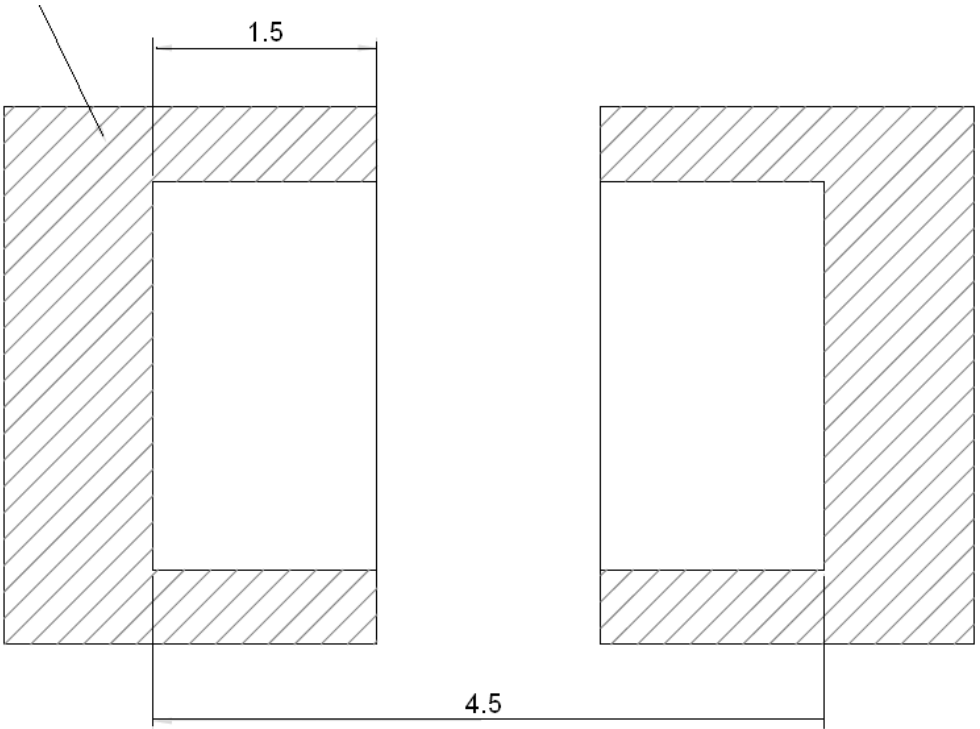
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RECOMMENDED SOLDER PAD



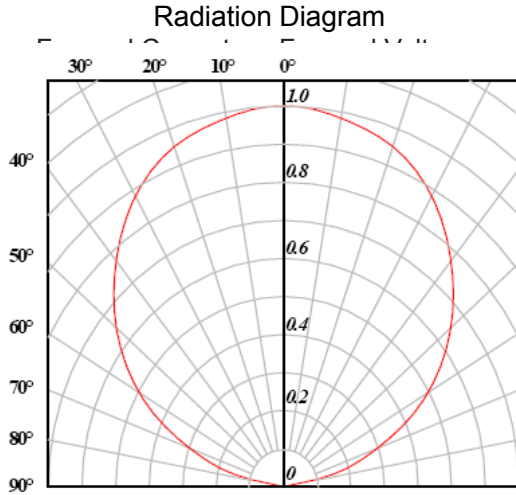
Additional Cu area for improved heat dissipation > 16mm sq.

 Solder resist

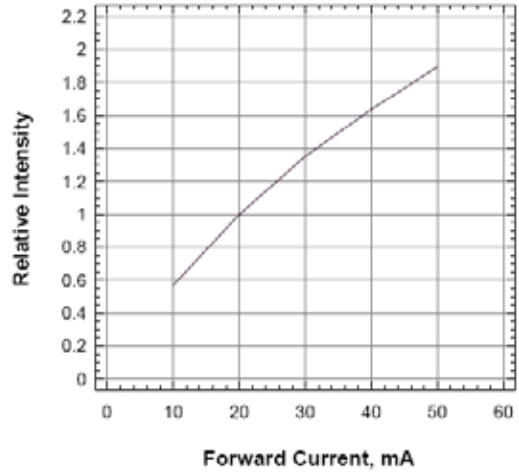


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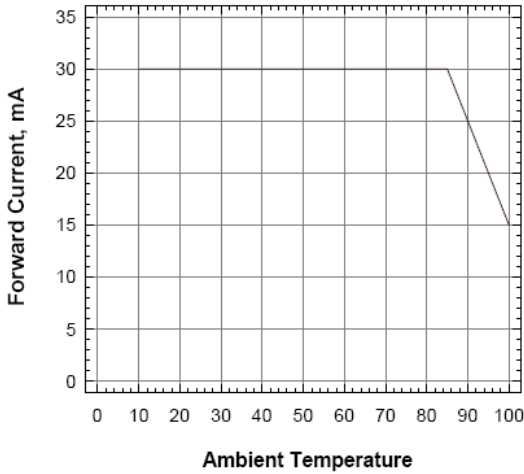
OPTICAL CHARACTERISTIC CURVES



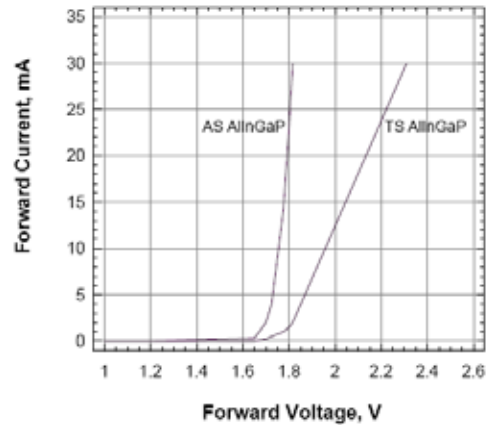
Relative Intensity vs. Forward Current



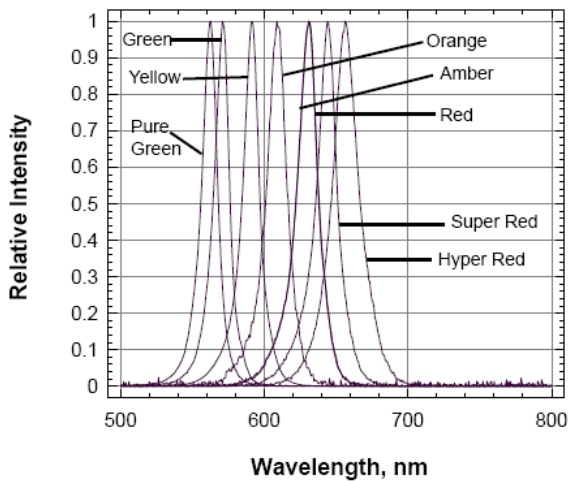
Max Forward Current vs. Temp



Forward Current vs. Forward Voltage



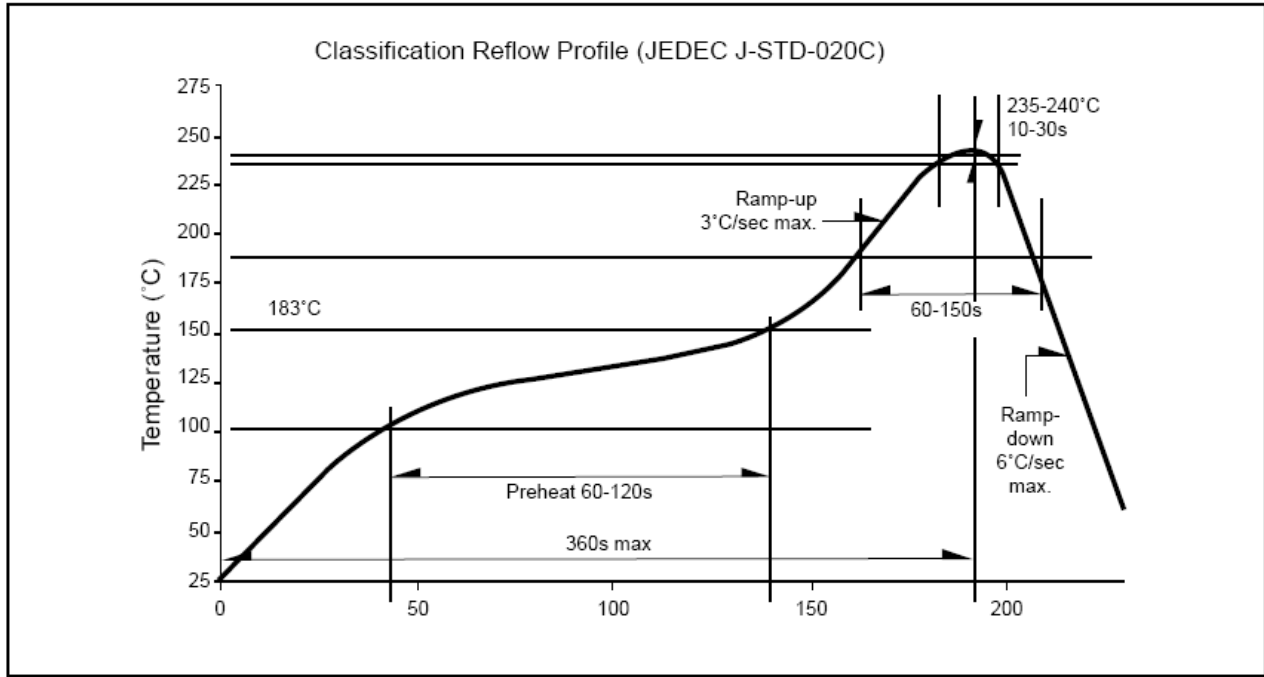
Relative Intensity vs. Wavelength



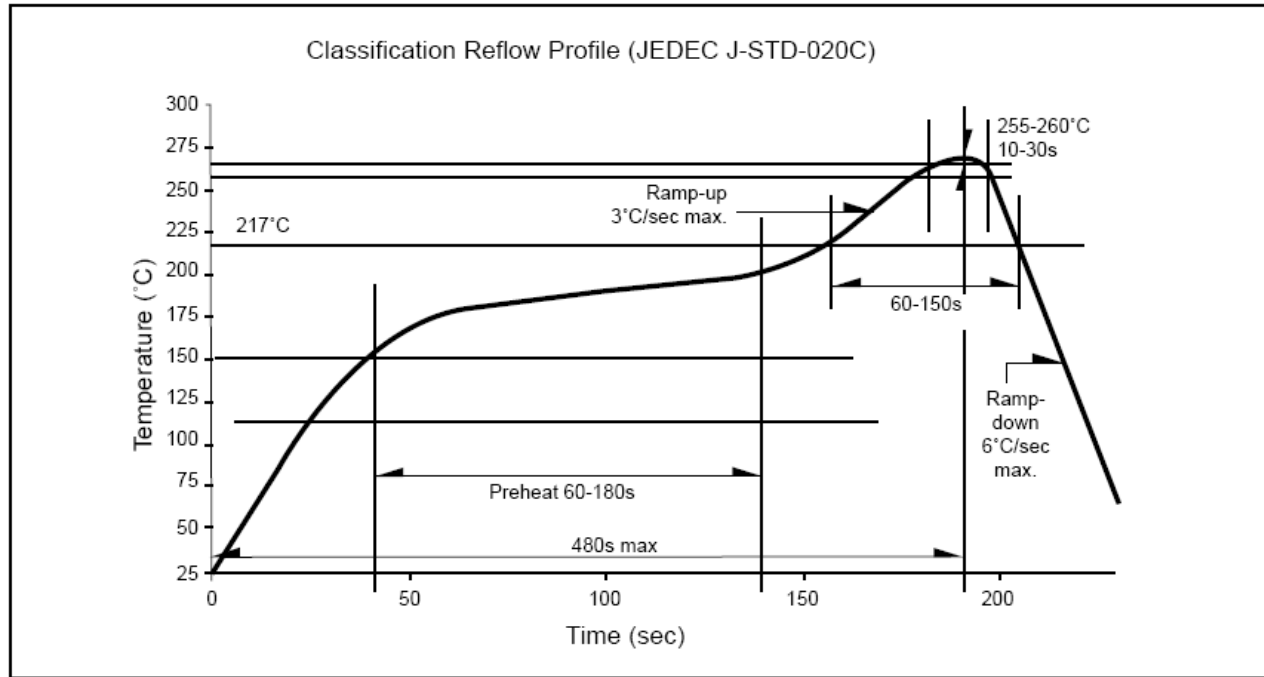
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SOLDERING CONDITIONS

RECOMMENDED Sn-PB IR-Reflow Soldering Profile



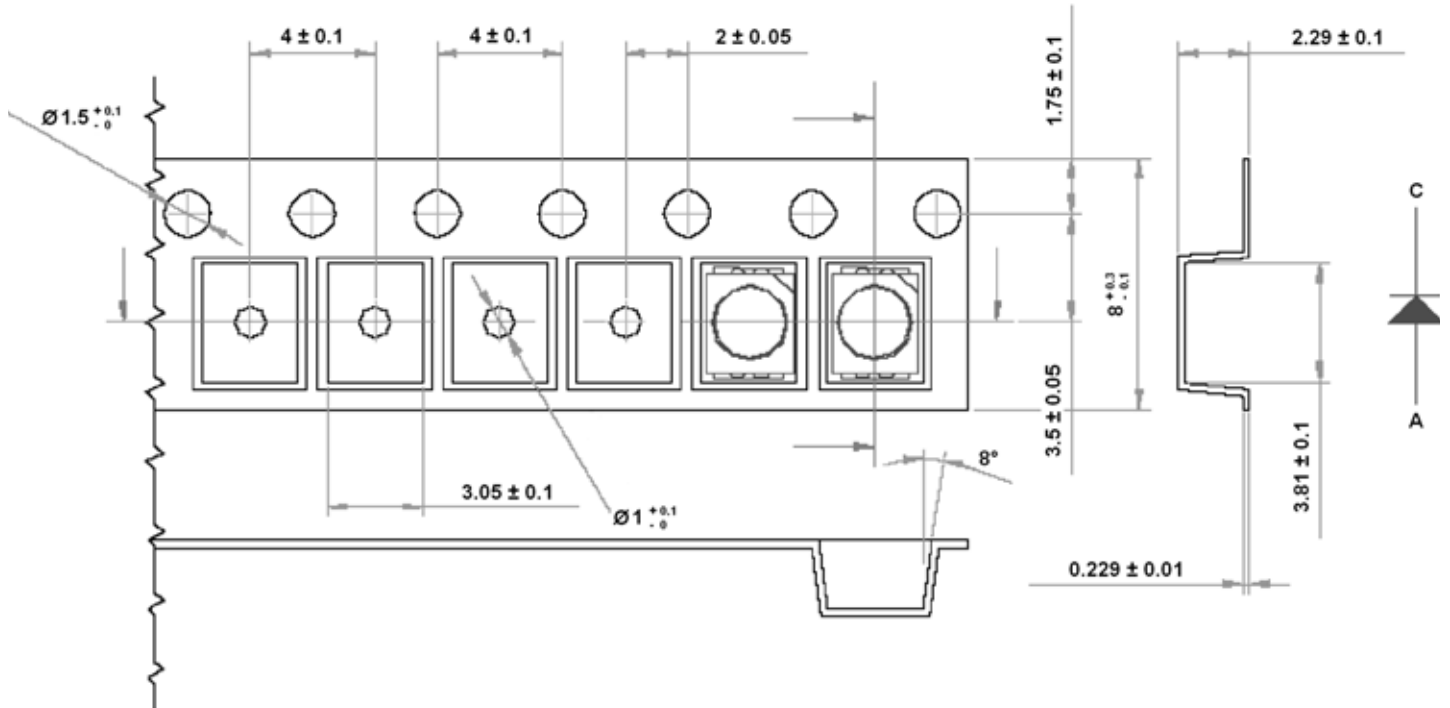
RECOMMENDED Pb-Free Soldering Profile



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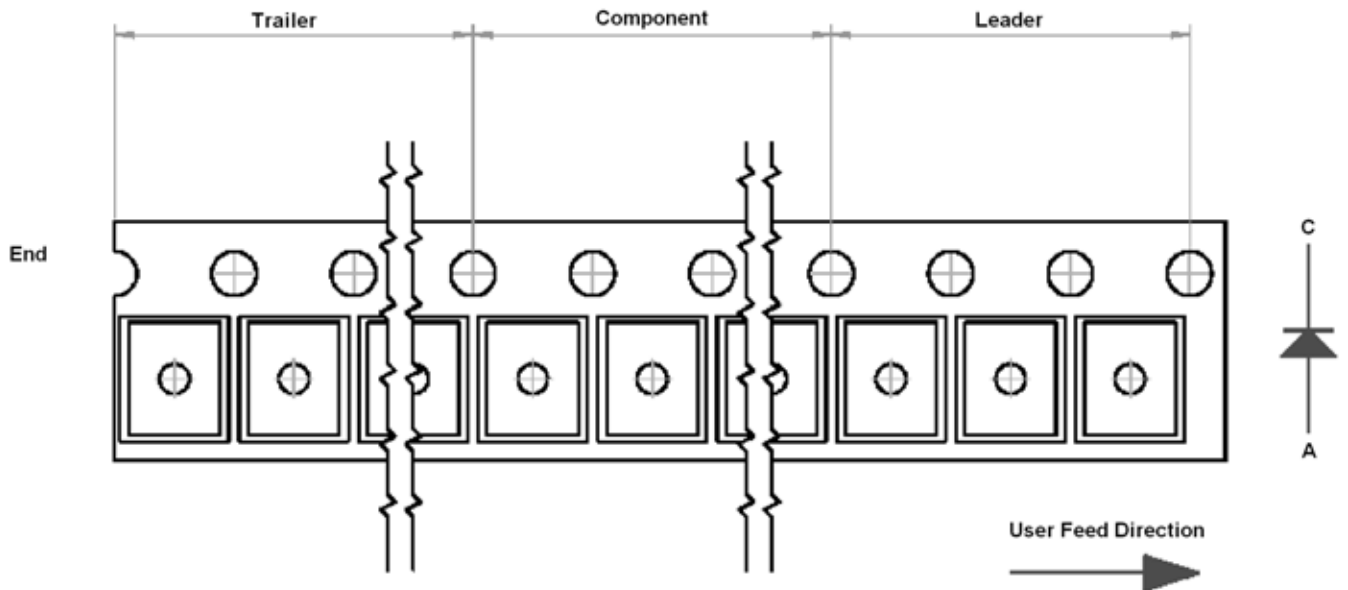
PACKAGING SPECIFICATION

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 Ø180 and Ø330 reel
 - 2) 480mm min for Ø180 reel
 - 3) 960mm min for Ø330 reel



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