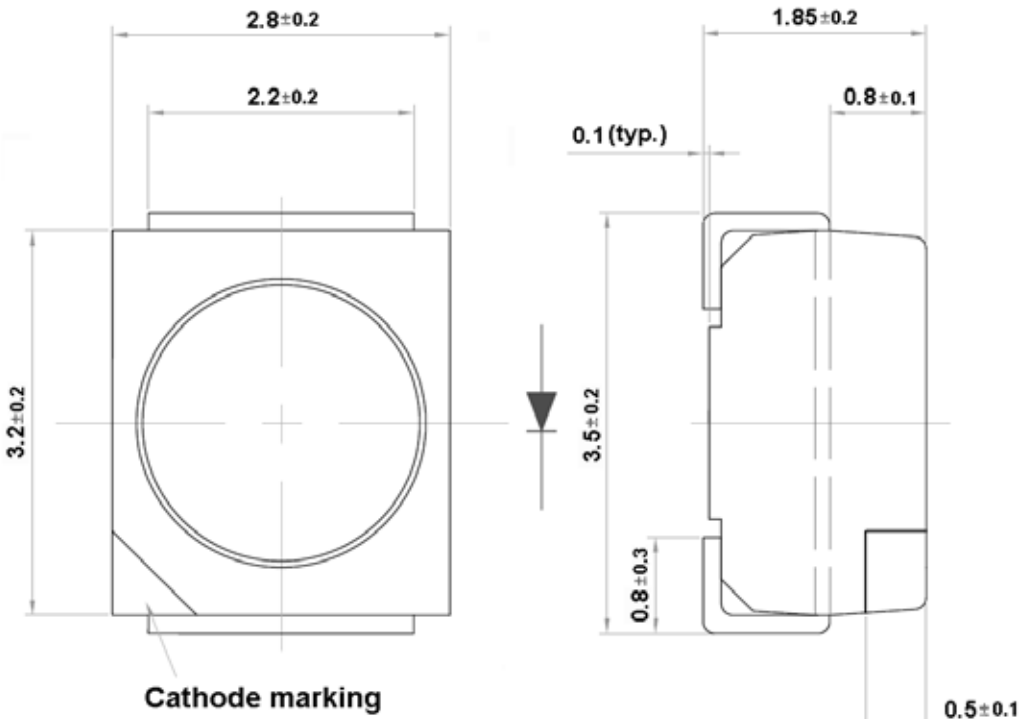


SPECIFICATION **CSP1311R2C**
PACKAGE OUTLINES


- 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 |
|-------------|---------------|-------------------|-------------|---------------|
| CSP1311R2C | 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)

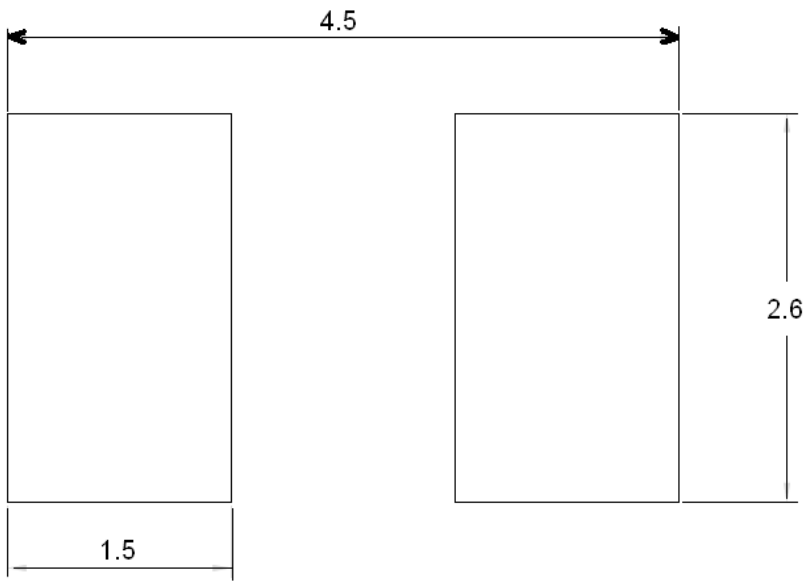
| Parameter | Symbol | Test Condition | Value | | | Unit |
|-------------------------------------|-------------------|-----------------------|-------|-------|-----|------|
| | | | Min | Typ | Max | |
| Luminous Intensity | I _v | I _F = 20mA | 45 | 112.5 | - | mcd |
| Forward Voltage | V _F | I _F = 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 | - | 646 | - | nm |
| Dominant Wavelength | λ _D | I _F = 20mA | - | 640 | - | nm |

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



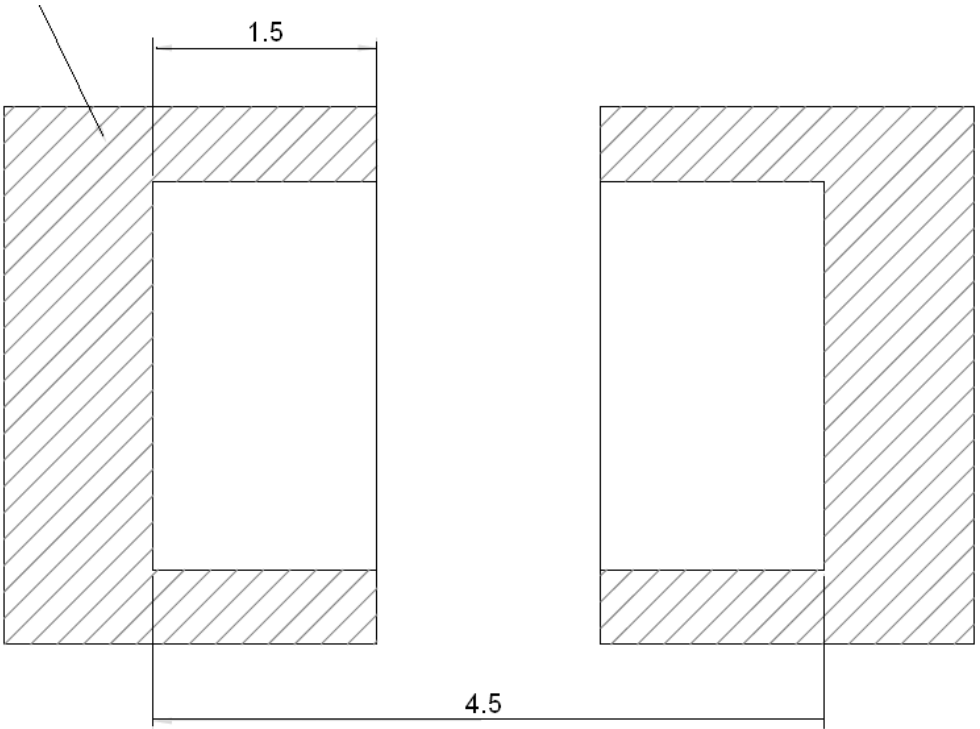
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RECOMMENDED SOLDER PAD



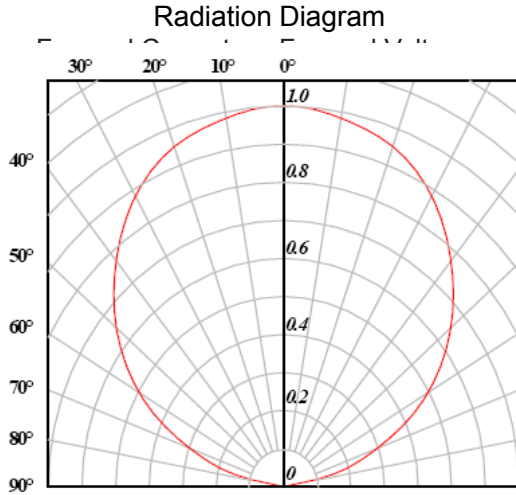
Additional Cu area for improved heat dissipation > 16mm sq.

 Solder resist

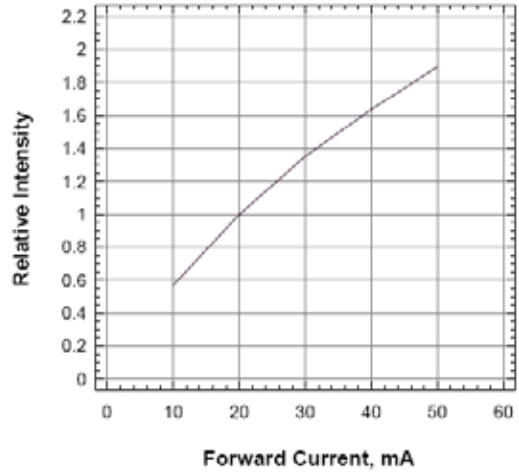


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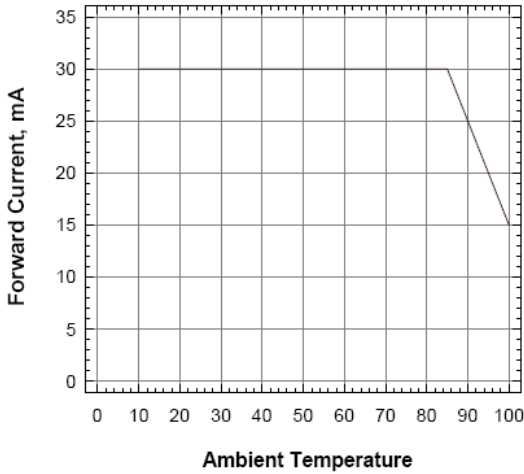
OPTICAL CHARACTERISTIC CURVES



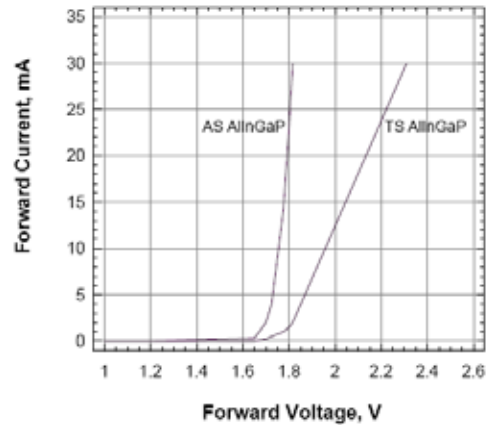
Relative Intensity vs. Forward Current



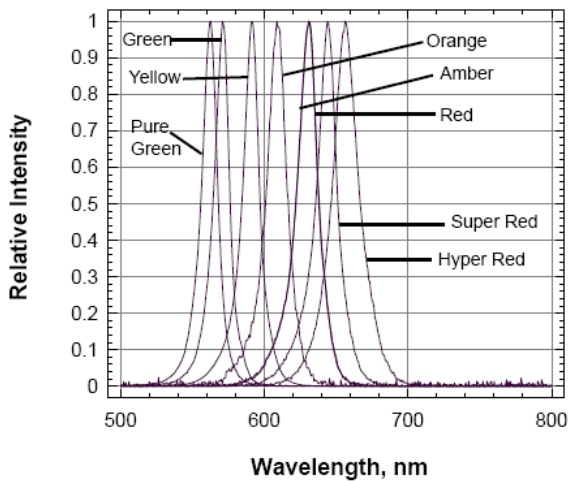
Max Forward Current vs. Temp



Forward Current vs. Forward Voltage



Relative Intensity vs. Wavelength



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SOLDERING CONDITIONS

RECOMMENDED Sn-PB IR-Reflow Soldering Profile



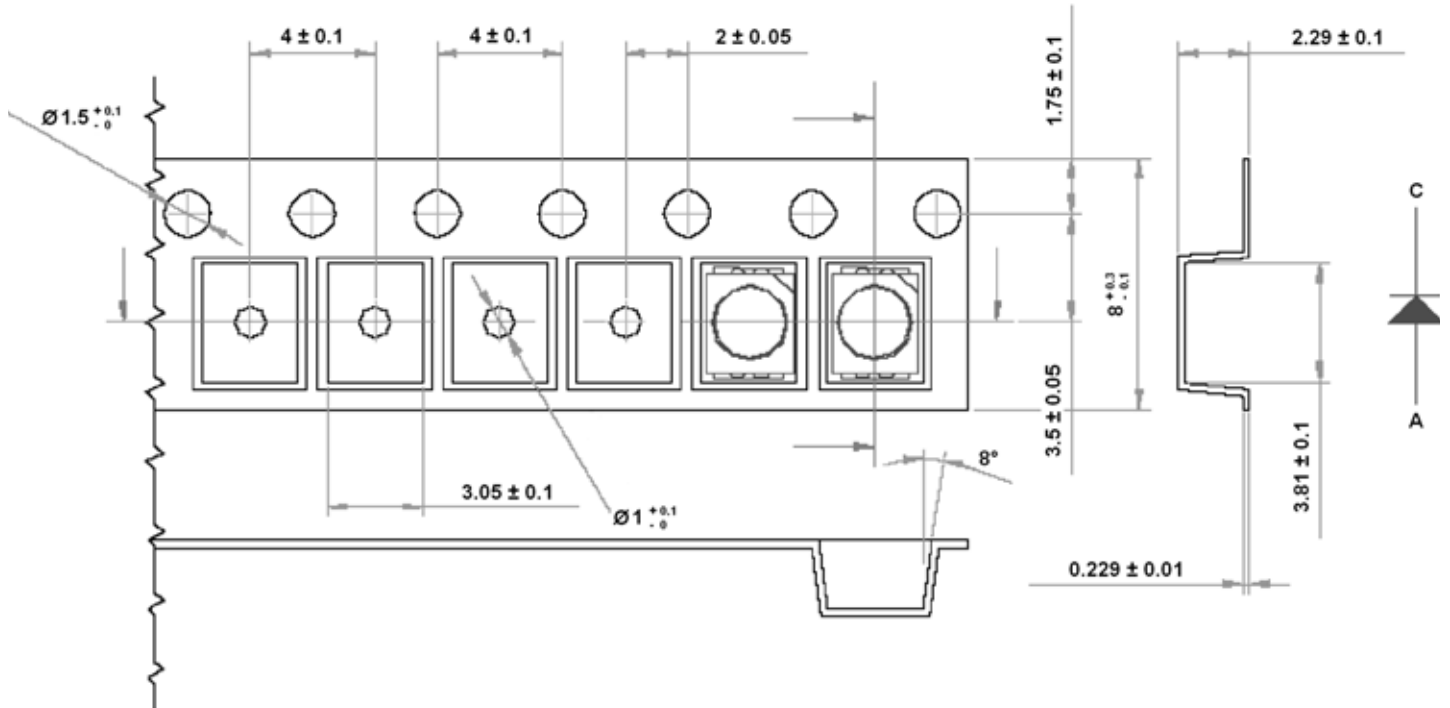
RECOMMENDED Pb-Free Soldering Profile



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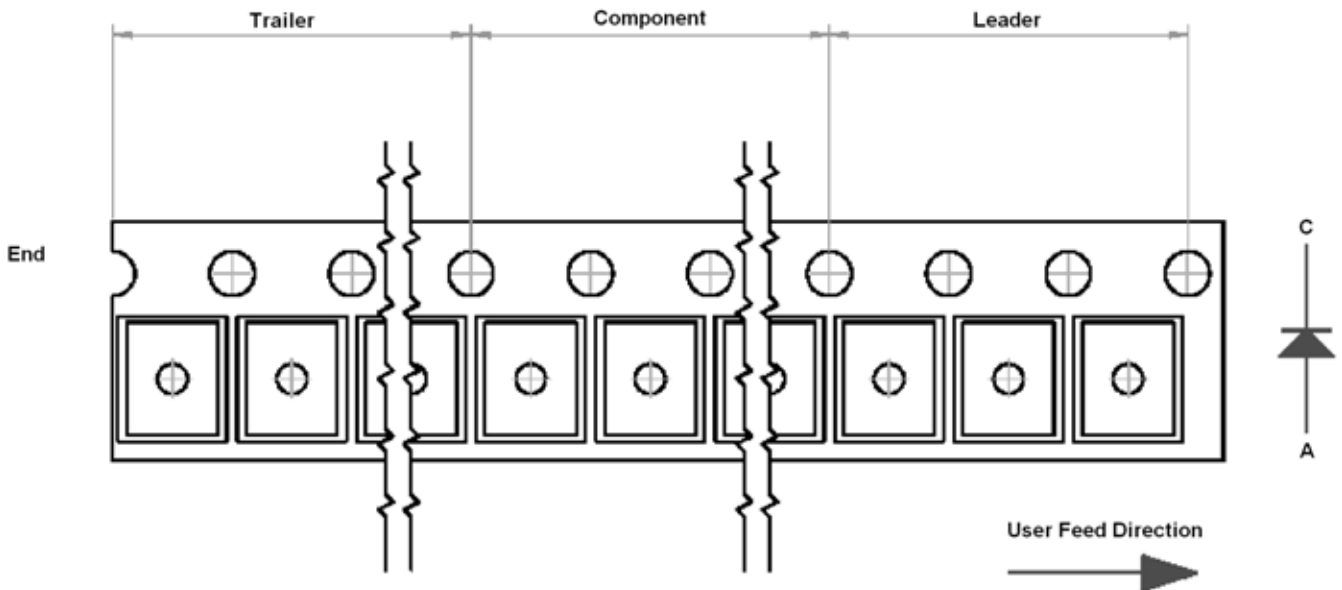
PACKAGING SPECIFICATION

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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