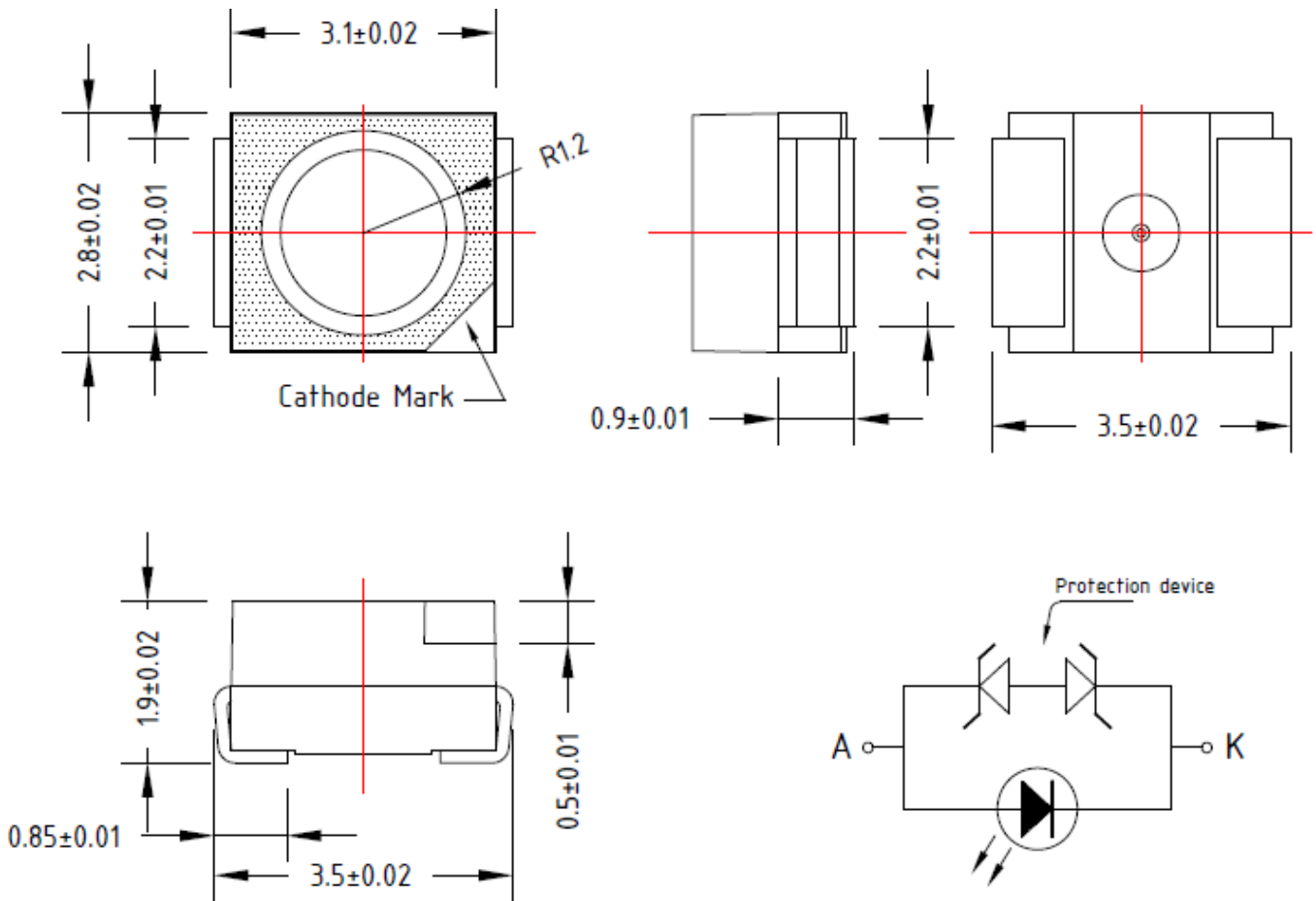


SPECIFICATION
CSP1311B2ZC
PACKAGE OUTLINES

Notes:

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

Part Number	Chip Material	Color of Emission	Lens Type	Viewing Angle
CSP1311B2ZC	InGaN	Blue	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	72	mW
Operating Temperature Range	T _{OP}	-30~+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	180	340	-	mcd
Forward Voltage	V _F	I _F = 20mA	-	3.2	3.8	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	-	465	-	nm
Dominant Wavelength	λ _D	I _F = 20mA	-	470	-	nm

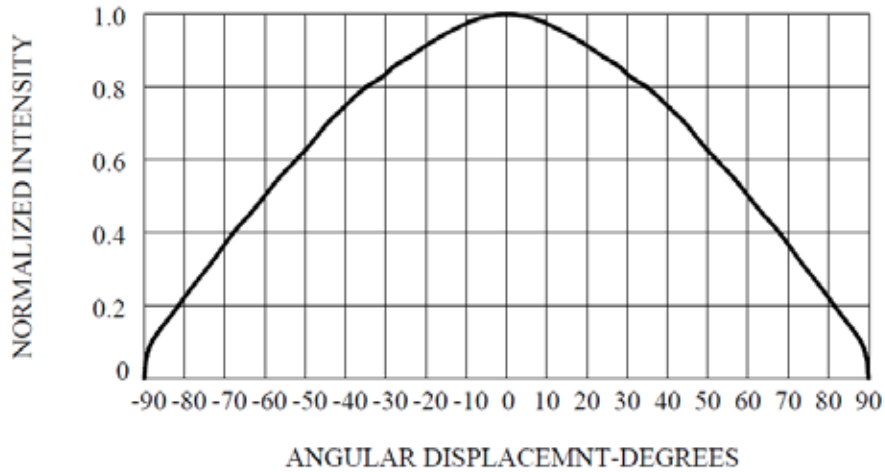
*Tolerance of viewing angle: -10 / +5 deg.



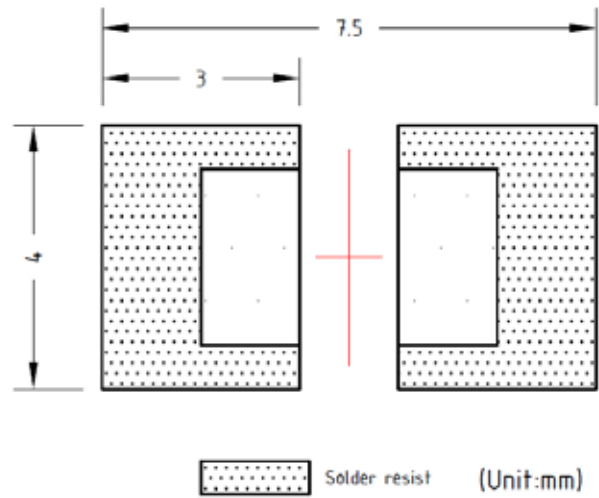
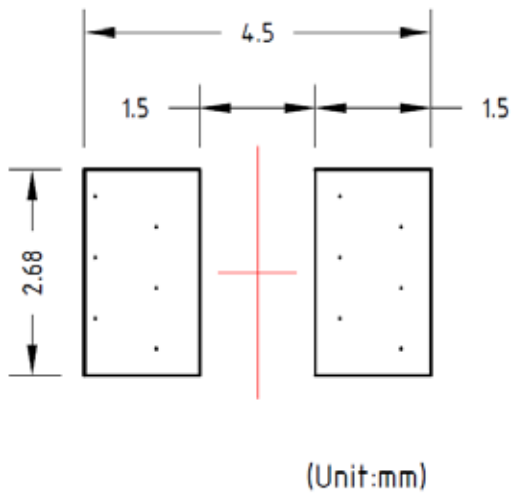
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RADIATION PATTERN & RECOMMENDED SOLDER PAD

Radiation Pattern



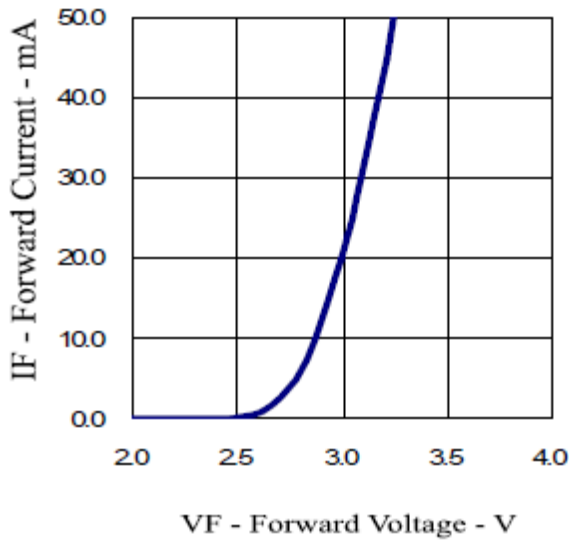
Recommended Soldering Pad Pattern



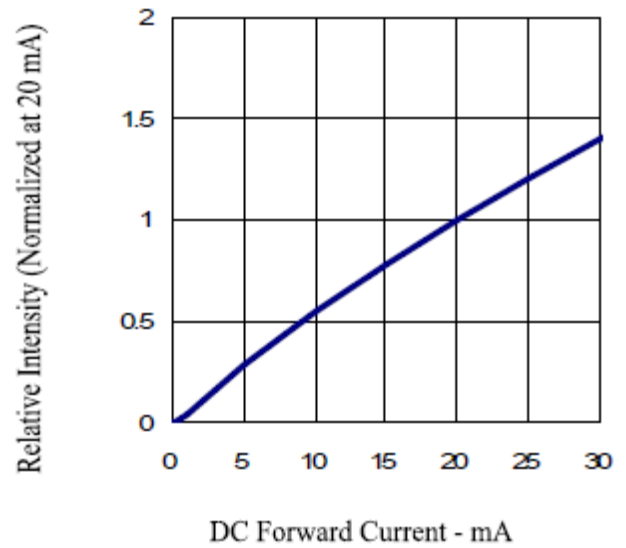
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OPTICAL CHARACTERISTIC CURVES

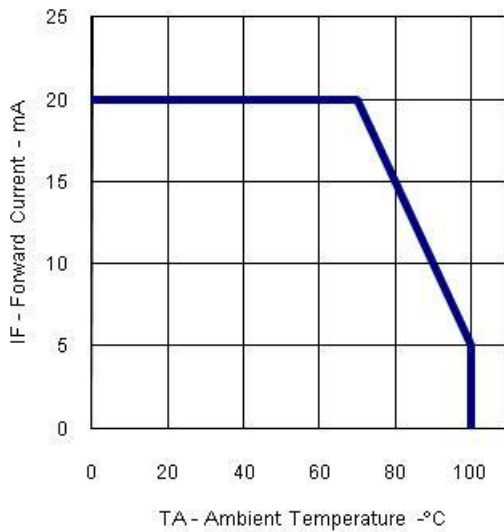
Forward Current vs. Forward Voltage



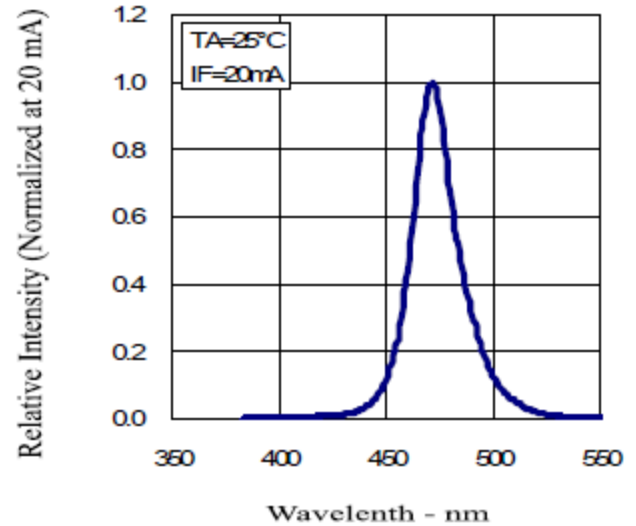
Relative Intensity vs. Forward Current



Forward Current vs. Ambient Temperature



Relative Intensity vs. Wavelength



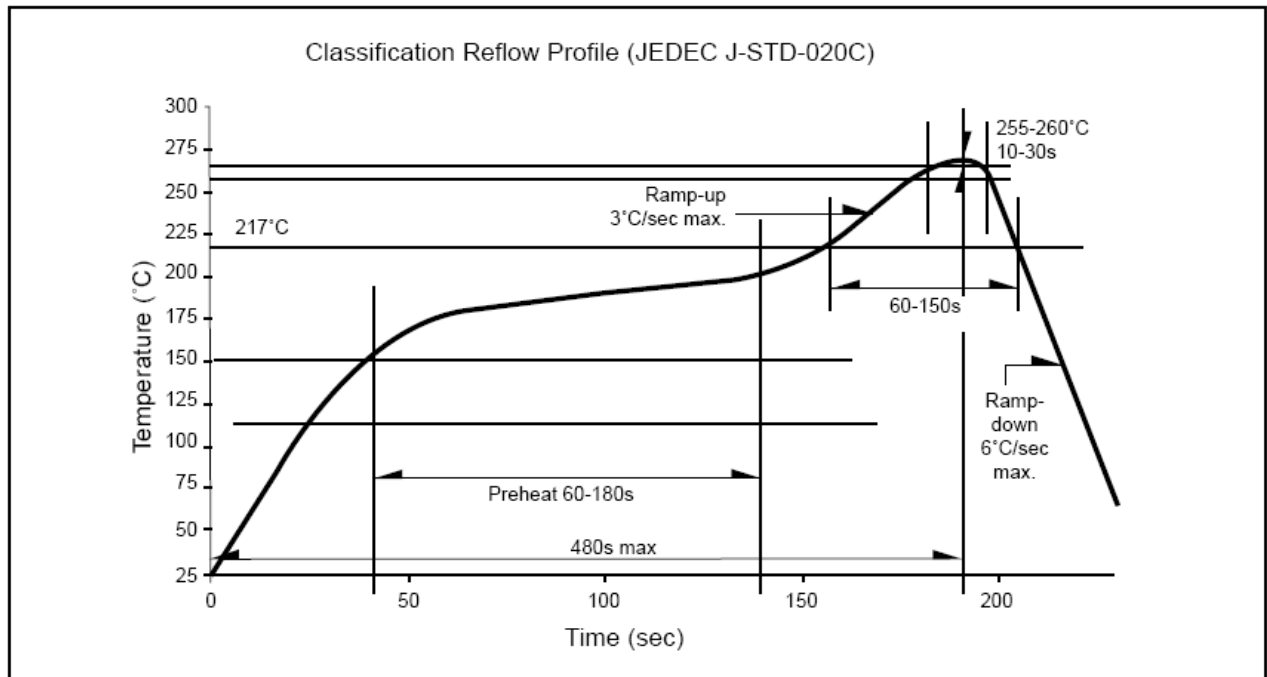
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SOLDERING CONDITIONS

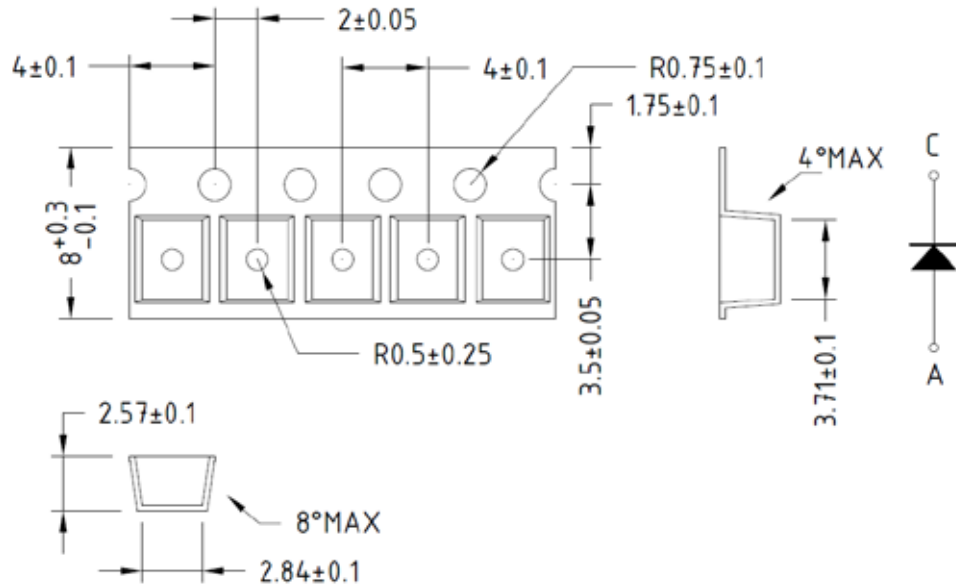
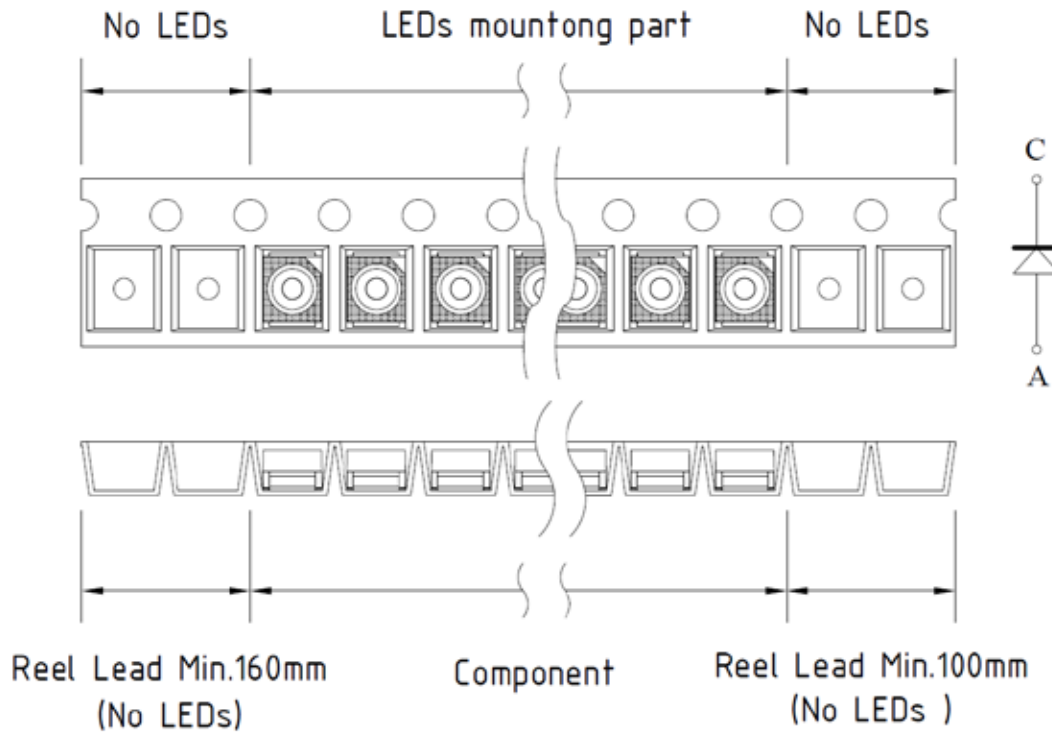
RECOMMENDED Sn-PB IR-Reflow Soldering Profile



RECOMMENDED Pb-Free Soldering Profile



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PACKAGING SPECIFICATION
Tape Dimension

Tape Leader and Trailer Dimension


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