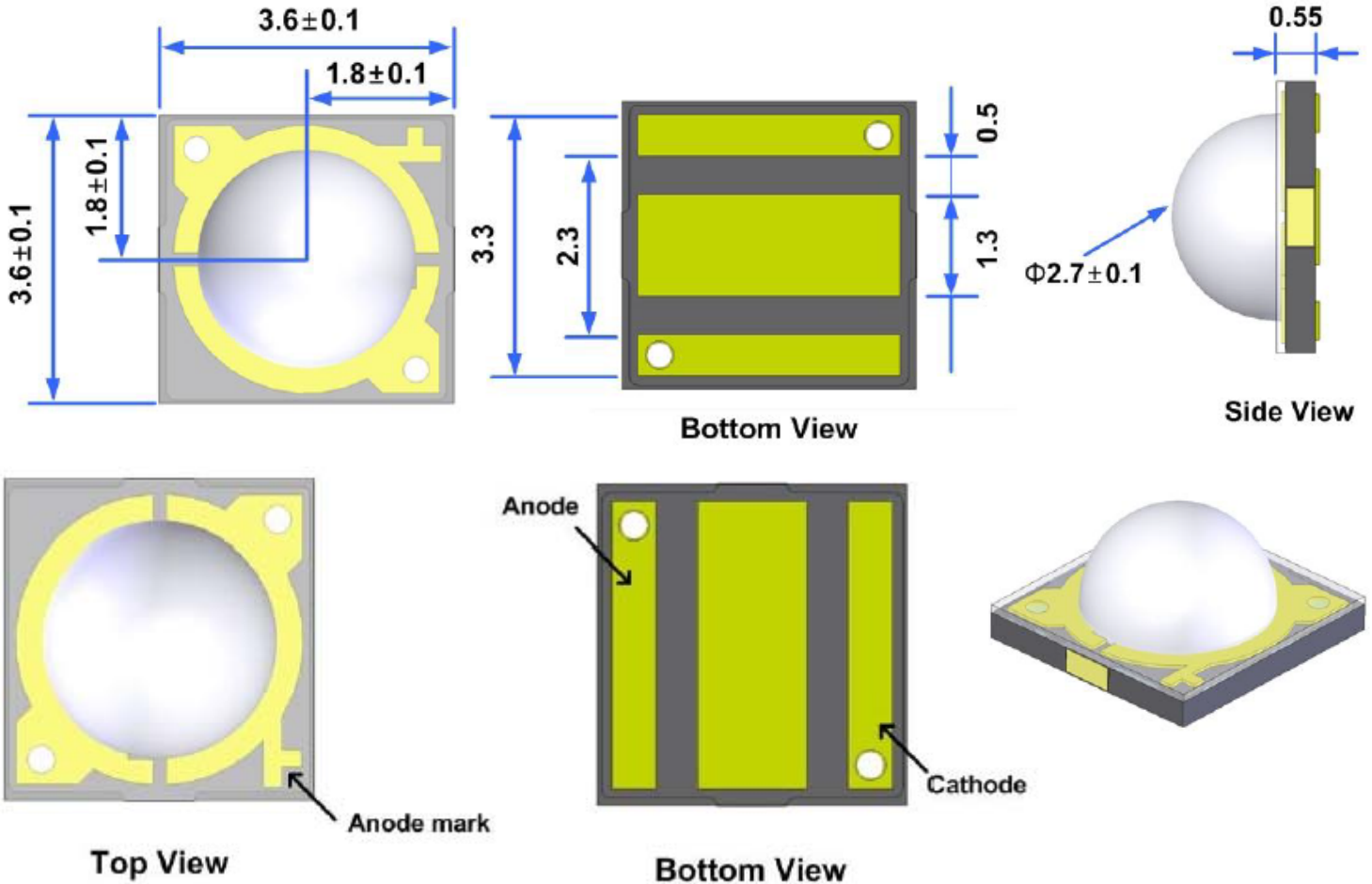


SPECIFICATION
CSHD1414NW2C
PACKAGE OUTLINES

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.

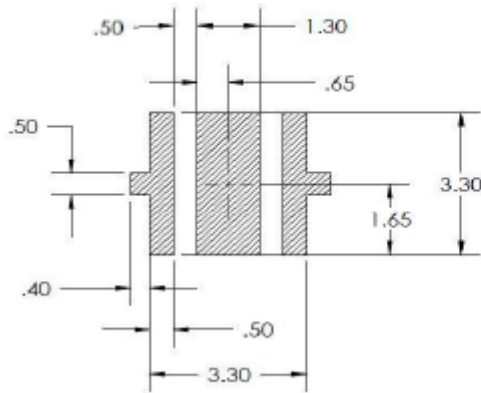
Part Number	Chip Material	Color of Emission	Lens Type	Viewing Angle
CSHD1414NW2C	InGaN	White	Water Clear	130°



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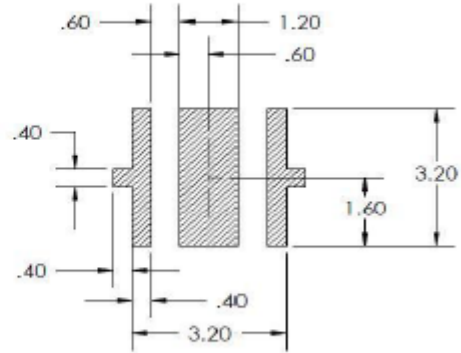
RECOMMENDED SOLDER PADS

Recommended PCB solder pad:



RECOMMENDED PCB SOLDER PAD

Recommended stencil pattern:



RECOMMENDED STENCIL PATTERN
(HATCHED AREA IS OPENING)



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ABSOLUTE MAXIMUM RATINGS
(TA=25°C)

Parameter	Symbol	Max Rating	Unit
Forward Current	IF	700	mA
Reverse Voltage	VR	5	V
Operating Temperature Range	TOP	-40~+85	°C
Storage Temperature Range	TSTG	-40~+100	°C
Peak Pulsing Current (1/10 duty f = 10KHz)	IFP	1000	mA
Soldering Temperature	TSOL	Max 240°C for 5 sec Max	

OPTICAL-ELECTRICAL CHARACTERISTICS
(TA=25°C)

Parameter	Symbol	Test Condition	Value			Unit
			Min	Typ	Max	
Luminous Intensity	Iv	IF = 350mA	90	110	-	lm
Forward Voltage	VF	IF = 350mA	-	3.3	-	V
Reverse Leakage Current	IR	VR = 5V	-	-	10	µA
Viewing Angle at 50% Iv	2θ1/2	IF = 350mA	-	130	-	Deg
Color Rendering Index	CRI	IF = 350mA	-	75	-	-
Correlated Color Temperature	CCT	IF = 350mA	3710	-	4745	K

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

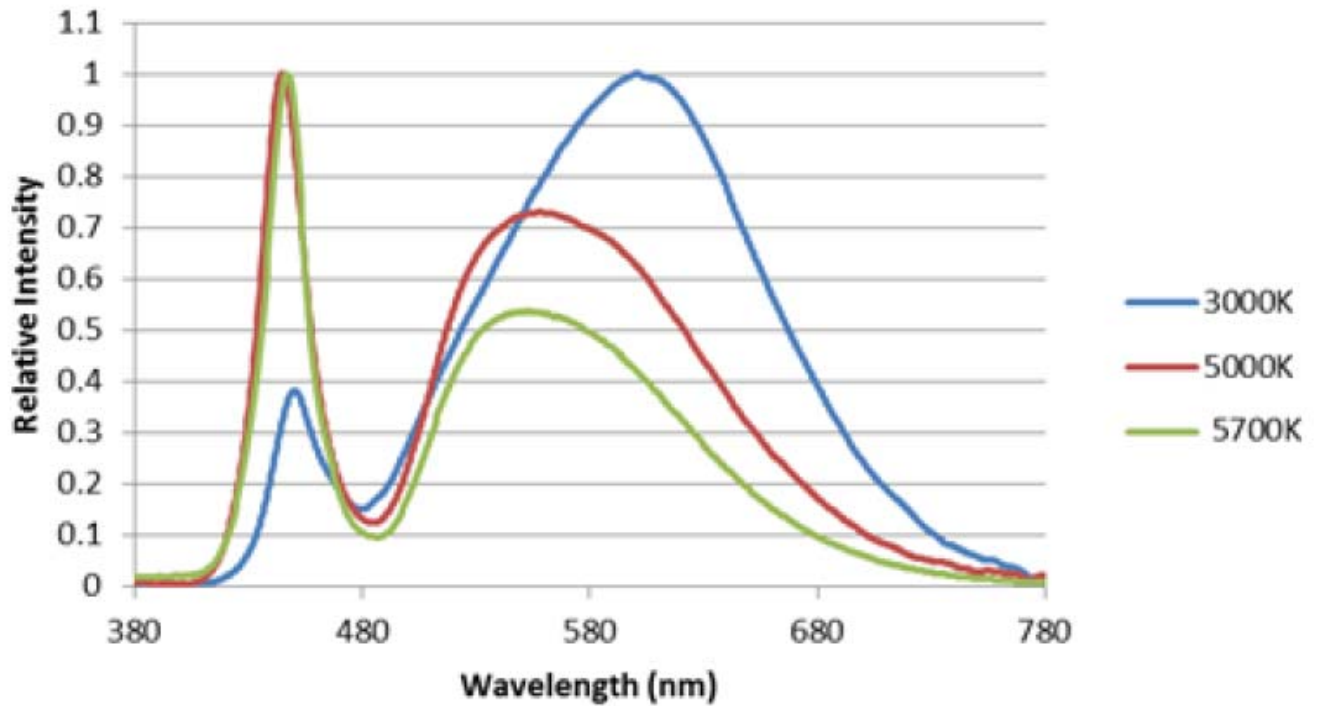


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OPTICAL CHARACTERISTIC CURVES

Relative Spectral Distribution vs. Wavelength Characteristics

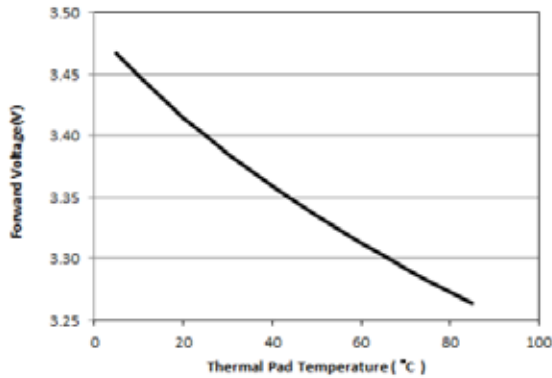
Nominal 3000K, 5000K and 5700K – Thermal Pad Temperature = 25°C



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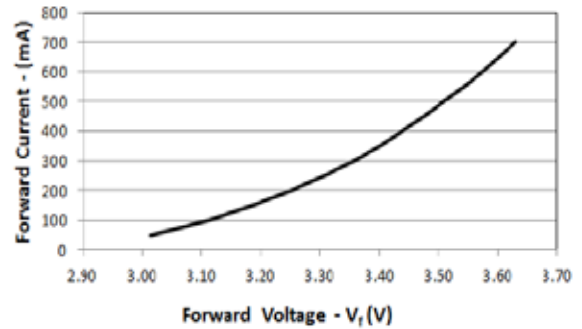
OPTICAL CHARACTERISTIC CURVES

Forward Voltage vs. Thermal Pad Temperature @350mA

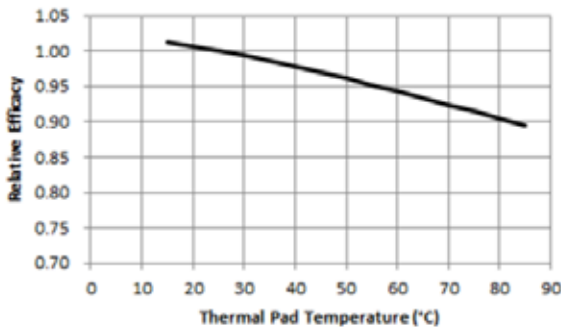


Typical Forward Current Characteristics

Pad Temperature = 25°C

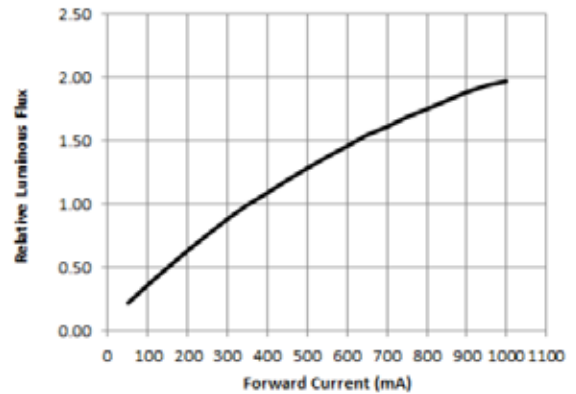


Typical Efficacy vs. Thermal Pad Temperature @350mA

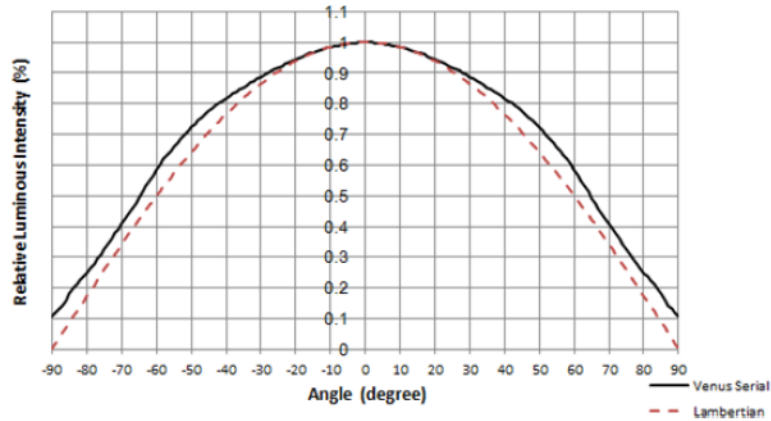


Typical Relative Luminous Flux vs. Forward Current

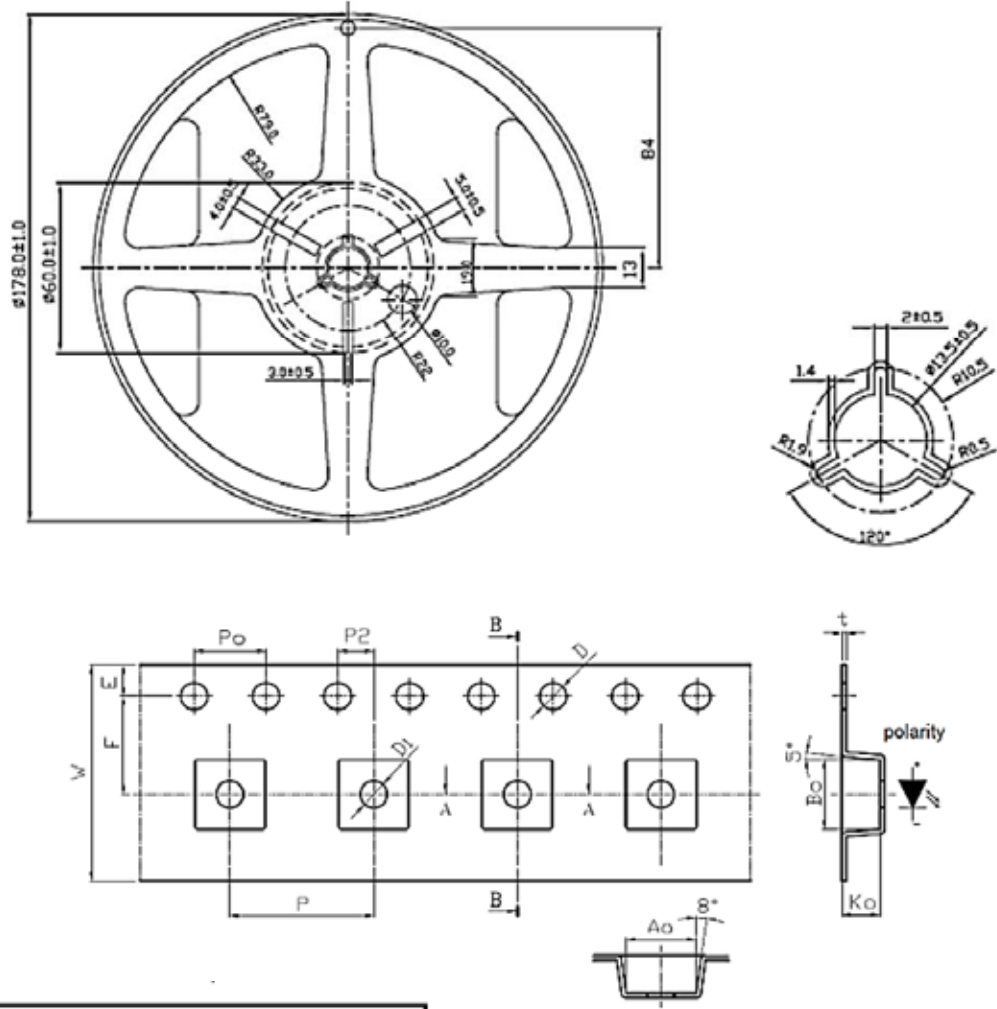
Thermal Pad Temperature = 25°C



Typical Radiation Patterns



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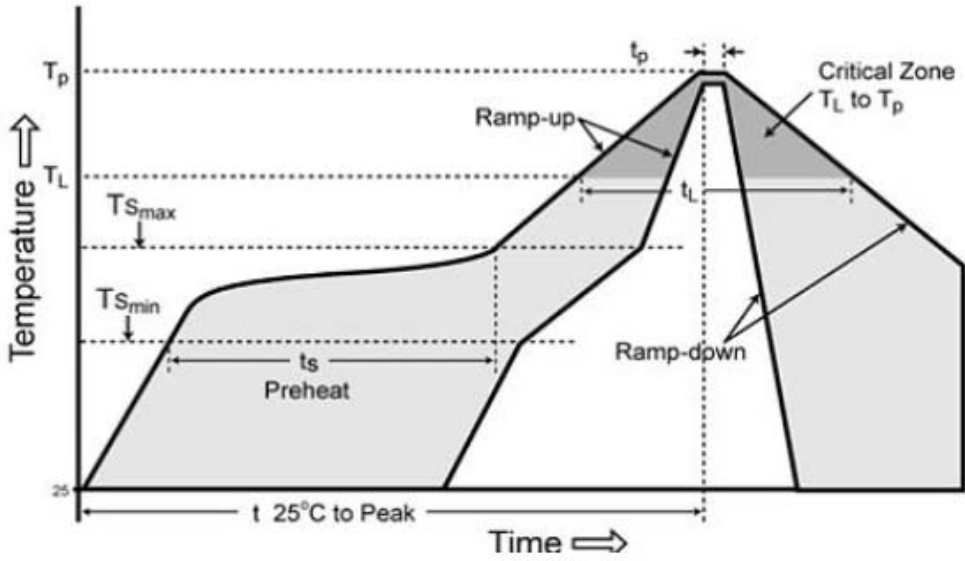
PACKAGING SPECIFICATION
TAPE & REEL DIMENSIONS


Symbol	Dimension
W	12.00±0.10
P	8.00±0.10
E	1.75±0.10
F	5.50±0.05
P2	2.00±0.05
D	1.50+0.10 or 1.50-0.00
D1	1.50±0.10
Po	4.00±0.10
10Po	40.00±0.20
Ao	3.90±0.10
Bo	3.90±0.10
Ko	2.15±0.1
t	0.26±0.05



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SOLDERING CONDITIONS



Profile Feature	Pb-Free Assembly
Average ramp-up rate (TL to TP)	3°C/second max.
Preheat	
Temperature Min (Tsmin)	150°C
Temperature Max (Tsmax)	200°C
Time (min to max) (ts)	60-180 seconds
Time maintained above:	
Temperature (TL)	217°C
Time (tL)	60-150 seconds
Peak/Classification Temperature (Tp)	240°C
Time within 5°C of actual Peak Temperature (tp)	20-40 seconds
Ramp-down Rate	6°C/second max.
Time 25°C to Peak Temperature	8 minutes max.



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