

CTL1206DWH1T DATASHEET

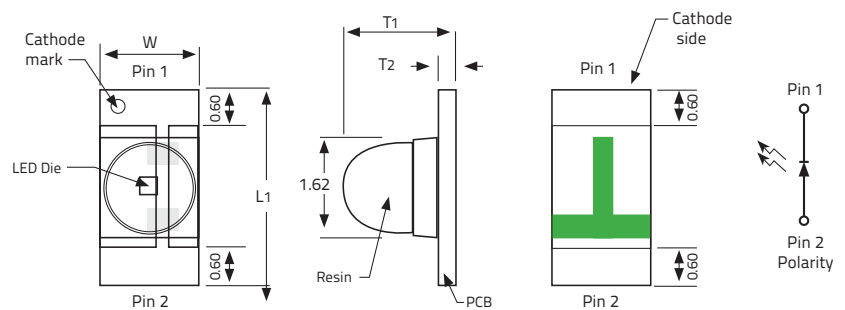
Chip Type LED, 1206, Dome Lens, White



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Part Number	Size	Emitting Color	Emitting Material	Lens-Color	Luminous Intensity (I _F =20mA) mcd	Wavelength nm λ _P	Viewing Angle (2θ 1/2)
CTL1206DWH1T	1206	White	AllnGaP	Yellow Diff	360.0 min 1125.0 typ		20°

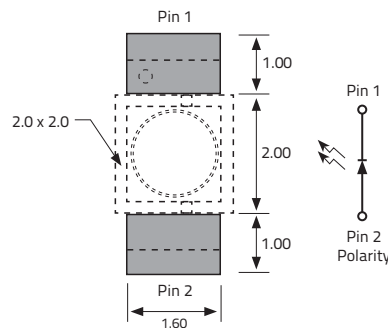
Electrical & Optical Specifications (T _A =25°C)	GR1 (AlGaInP)	Unit
Forward Voltage (Min.) (I _F =20mA)	V _F	3.2 V
Forward Voltage (Max.) (I _F =20mA)	V _F	3.9 V
Reverse Current (Max) (V _R =5V)	I _R	<100 μA
Peak Wavelength (Typ.) (I _F =20mA)	λ _P	nm
Dominant Wavelength (Typ.) (I _F =20mA)	λ _D	nm
Spectral Line Half Width (Typ.) (I _F =20mA)	Δλ	nm



Dimensions				Units: Inches (mm)			
L ₁	W	T ₁	T ₂	L ₁	W	T ₁	T ₂
0.1259±0.004 (3.20±0.1)	0.0629±0.004 (1.6±0.1)	0.0728±0.004 (1.85±0.1)	0.0118±0.004 (0.30±0.1)				

Absolute Maximum Ratings (T _A =25°C)	GR1 (AlGaInP)	Unit
Reverse Voltage	V _R	5 V
DC Forward Current	I _F	20 mA
Peak Forward Current 1/10 Duty Cycle @ 10KHz	I _{FP}	60 mA
Power Dissipation	P _D	78 mW
Operating Temperature	T _A	-40 ~ +85 °C
Storage Temperature	T _{stg}	-40 ~ +100 °C

Soldering Pad Layout



Tolerances are all ±0.1mm

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Graphs

Fig.1 Forward Current vs Forward Voltage

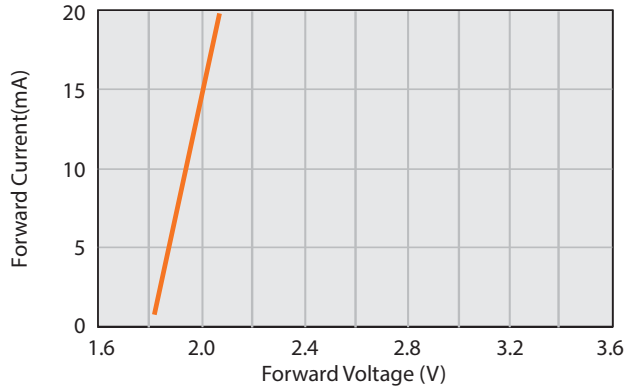


Fig.2 Relative Intensity vs Forward Current

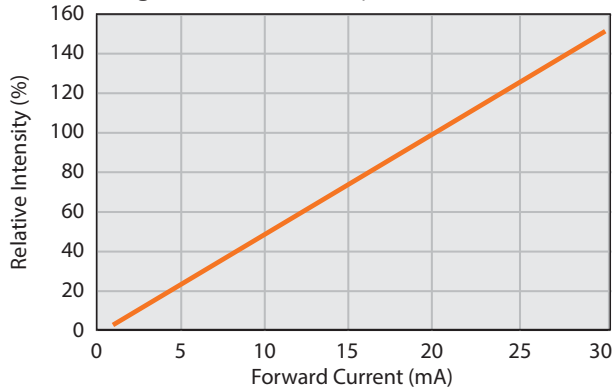


Fig.3 Current vs Temp

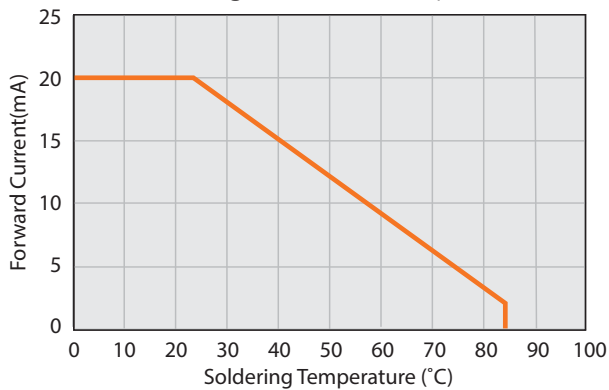


Fig.4 Relative Intensity vs Wavelength

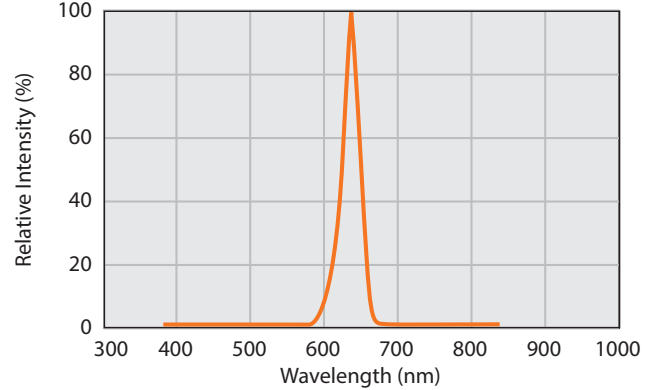
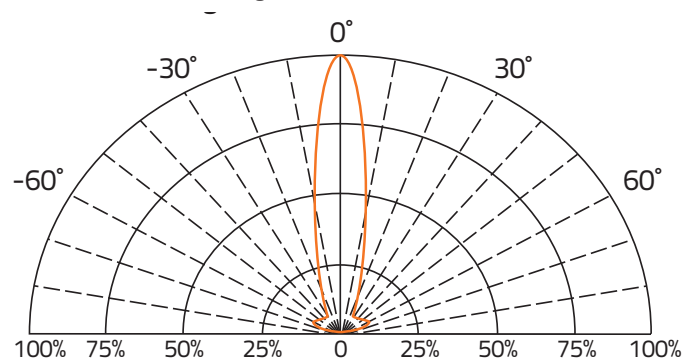


Fig.5 Direct Radiation



Environmental information	
RoHS Status	6 of 6 Compliant
REACH Status	Compliant
Halogen Status	Halogen Free
Conflict Mineral Status	Conflict Mineral Free
Moisture Sensitivity Level (MSL)	3

Reflow profile	
Max Reflow Temperature	260°C
Number of Reflow Cycles	2
Time at Max Reflow Temperature	10 seconds

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Label Example

Item: CTL1206DWH1T
 Chip Type LED, 1206, Dome Lens, White
 Qty: 2000 D/C: 1616

Lot: E1A1A22L12

BIN/HUE: W/D1 VF: 1.6V-2.4V

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YOUR SINGLE SOURCE FOR SURFACE MOUNT PASSIVES

Codes:

VF: Forward Voltage | BIN: Luminous Intensity | HUE: Dominant Wavelength

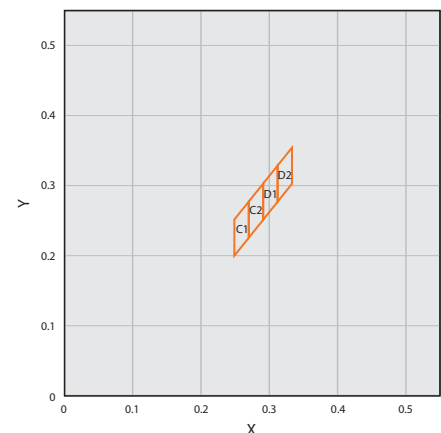
Luminous Intensity Classification (BIN Code)

BIN Code	Iv(mcd) at 20mA	
	Min.	Max.
U	360.0	450.0
V	450.0	560.0
W	560.0	715.0
X	715.0	900.0
Y	900.0	1125.0

Dominant Wavelength Classification (HUE Code)

HUE Code	Spec. Range		HUE Code	Spec. Range	
	X	Y		X	Y
C1	0.2500	0.2050	C2	0.2700	0.2325
	0.2500	0.2500		0.2700	0.2775
	0.2700	0.2775		0.2900	0.3050
	0.2700	0.2325		0.2900	0.2600
D1	0.2900	0.2600	D2	0.3100	0.2875
	0.2900	0.3025		0.3100	0.3325
	0.3100	0.3325		0.3300	0.3600
	0.3100	0.2875		0.3300	0.3150

Fig.6 Chromaticity



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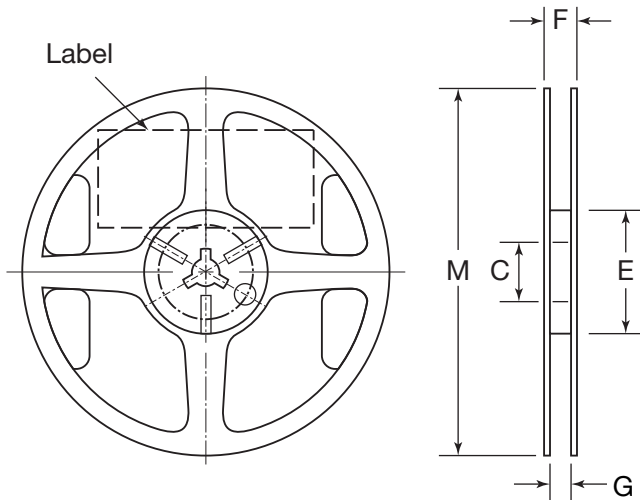
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Reel Specifications

Units: mm



M	C	F	E	G
178±1.50	13.0±1.0	12.0±1.0	60.0±1.0	9.0±1.0

Packaging Specifications

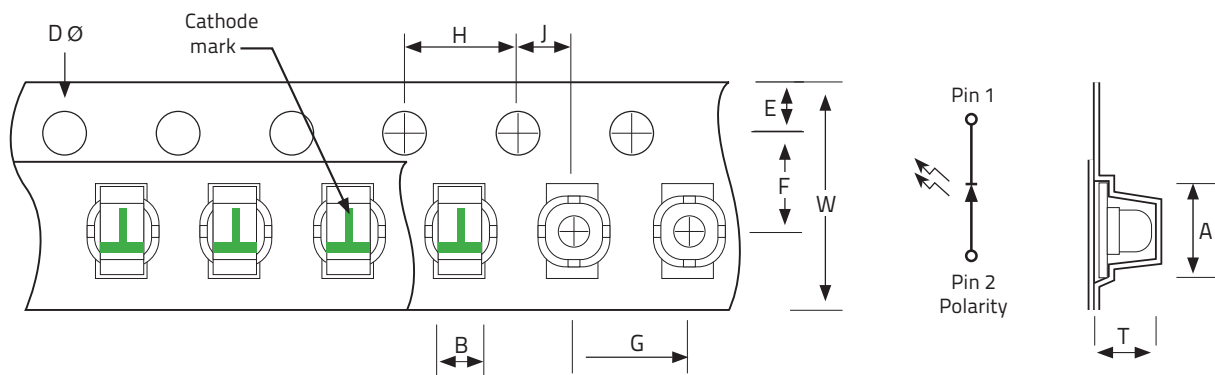
Reel Size:	7"
Quantity per Reel :	2,000

Storage Specifications

1. Storage temperature and RH: 5°C~35°C, RH60%
2. Once the package is opened, the LEDs should be used within a week. Otherwise, they should be kept in a moisture proof bag with desiccant. We suggest that you use this product within one year from date code.
3. If opened for more than one week in an atmosphere of 5°C~35°C, RH60%. The parts should be heat treated at 60°C±5°C for 15 hours.

Tape Specifications

Units: mm



T	W	A	B	F
2.17±0.10	8.0+0.30/-0.10	3.37±0.10	1.78±0.10	3.5±0.05
E	H	J	D	G
1.75±0.1	4.0±0.1	2.0±0.05	1.5±0.1	4.0±0.1

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Environmental Test Criteria

Classification	Test Item	Test Condition	Sample Size
Endurance Test	Operating Life	1. 25°C 2. 1000hrs	40
	High Temperature Storage	1. 85°C±5°C 2. 1000hrs	40
	Temperature, Humidity Bias	1. 40°C 2. 93% 3. 1000hrs	40
Environmental Test	Solderability	1. 245°C / 3±1 sec 2. 260°C / 10±1 sec	40