

**1W High Power Yellow LED
Technical Data Sheet**

Part No.: DL-HP10UYC-1W60

Double Light

◆ Features:

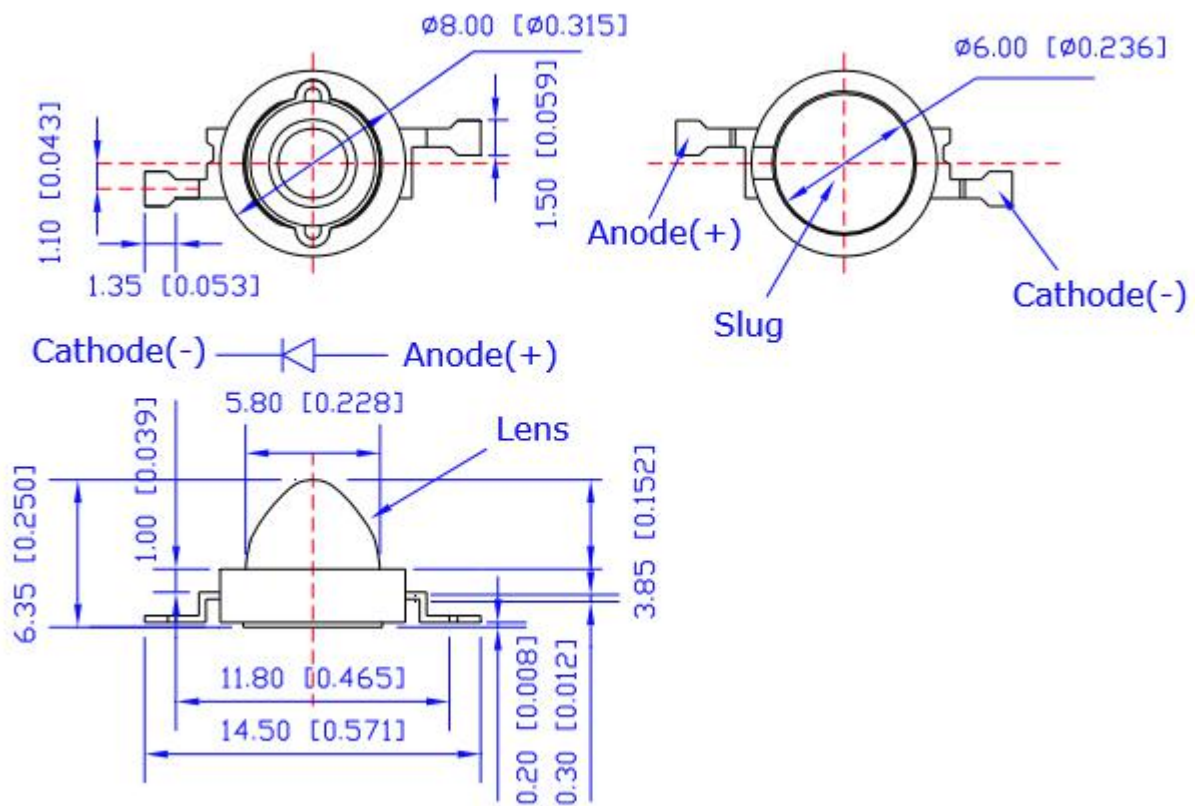
1. Very long operating life (up to 100k hours).
2. Available in white, green, blue, red, yellow.
3. More energy efficient than incandescent and most halogen lamps.
4. Low voltage DC operated.
5. Cool beam, safe to the touch.
6. Instant light (less than 100 ns).
7. The product itself will remain within RoHS compliant Version.

◆ Applications:

1. Reading lights (car, bus, aircraft).
2. Portable (flashlight, bicycle).
3. Mini_accent/Uplighters/Downlighters/Orientation.
4. Bollards/Security/Garden.
5. Cove/Undershelf/Task.
6. Automotive rear combination lamps.
7. Traffic signaling/Beacons/ Rail crossing and Wayside.
8. Indoor/Outdoor Commercial and Residential Architectural.
9. Edge lit signs (Exit, point of sale).
10. LCD Backlights/Light Guides.

Double Light

◆ Package Dimension:



Part No.	Chip Material	Lens Color	Source Color
DL-HP10UYC-1W60	AlGaInP	Water clear	Ultra Yellow

Notes:

1. All dimensions are in millimeters.
2. Tolerance is ± 0.25 mm (.010") unless otherwise noted.

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◆ Absolute Maximum Ratings at Ta=25°C

Parameters	Symbol	Rating	Units
Forward Current	IF	500	mA
PeakPulseCurrent (tp≤100μs, Duty cycle=0.25)	I pulse	700	mA
Reverse Voltage	VR	5	V
LED Junction Temperature	Tj	125	°C
Operating Temperature Range	Topr	-40 to +80	°C
Storage Temperature Range	Tstg	-40 to +100	°C
Soldering Time at 260 °C (Max.)	Tsol	5	Seconds

◆ Electrical Optical Characteristics at Ta=25°C

Parameters	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Viewing Angle [1]	$2\theta_{1/2}$	---	60	--	Deg	IF=500mA
Forward Voltage [2]	V _F	2.0	2.30	3.00	V	IF=500mA
Reverse Current	I _R	---	---	10	μA	V _R =5V
Peak Emission Wavelength	λ _p	---	592	---	nm	IF=500mA
Dominant Wavelength	λ _d	---	589	---	nm	IF =500mA
Spectrum Radiation Bandwidth	Δλ	---	15	---	nm	IF=500mA
Luminous Flux	Φ _v	40	50	---	lm	IF=500mA

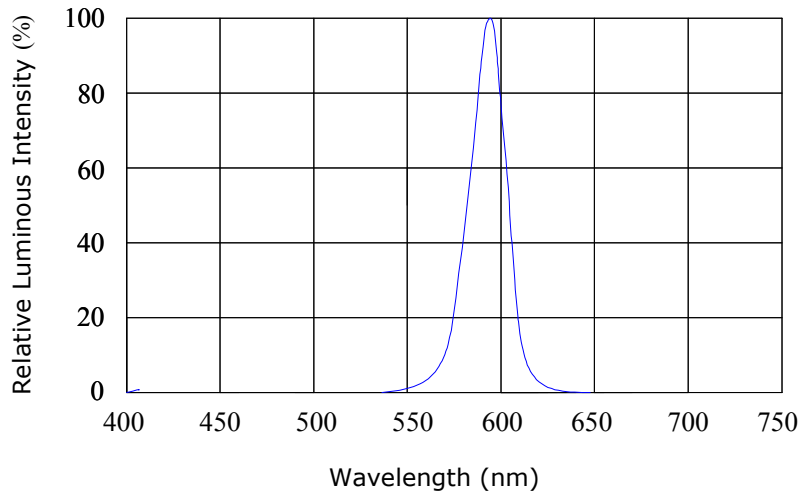
Notes:

1. $2\theta_{1/2}$ is the off axis angle from lamp centerline where the luminous intensity is 1/2 of the peak value.
2. Forward Voltage measurement tolerance: ±0.1V

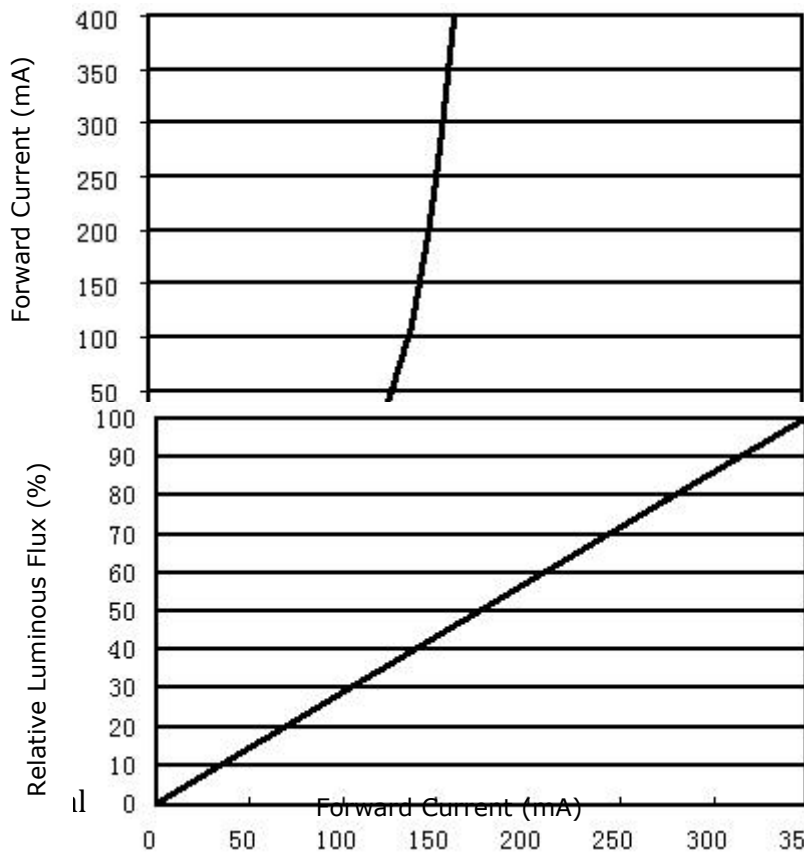
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- ◆ Typical Electrical / Optical Characteristics Curves
(25°C Ambient Temperature Unless Otherwise Noted)

Relative Spectral Distribution

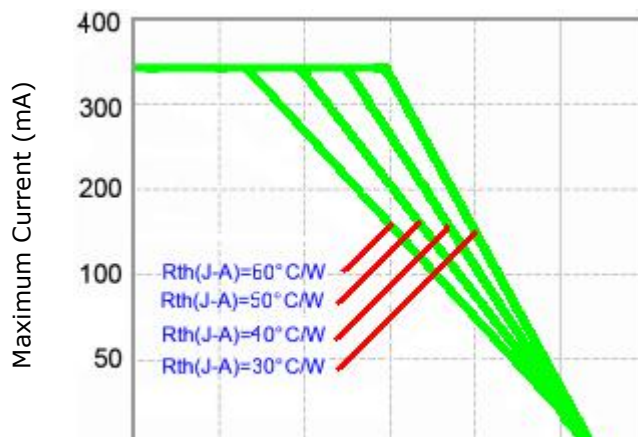


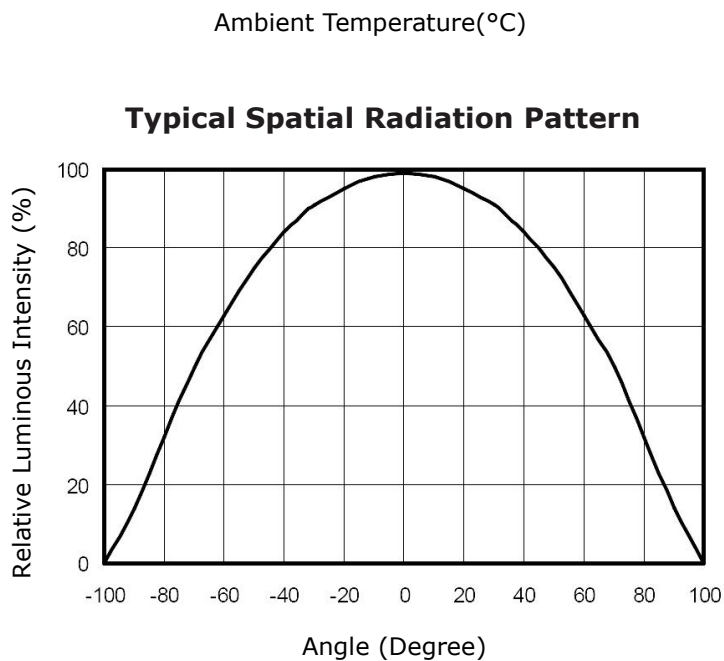
Forward Current VS Forward Voltage



- ◆ Typical Electrical-

Maximum Current (mA) VS Ambient





◆ **Please read the following notes before using the product:**

1. Over-current-proof

Customer must apply resistors for protection, otherwise slight voltage shift will cause big current change (Burn out will happen).

2. Storage

2.1 Do not open moisture proof bag before the products are ready to use.

2.2 Before opening the package, the LEDs should be kept at 30°C or less and 90%RH or less.

2.3 The LEDs should be used within a year.

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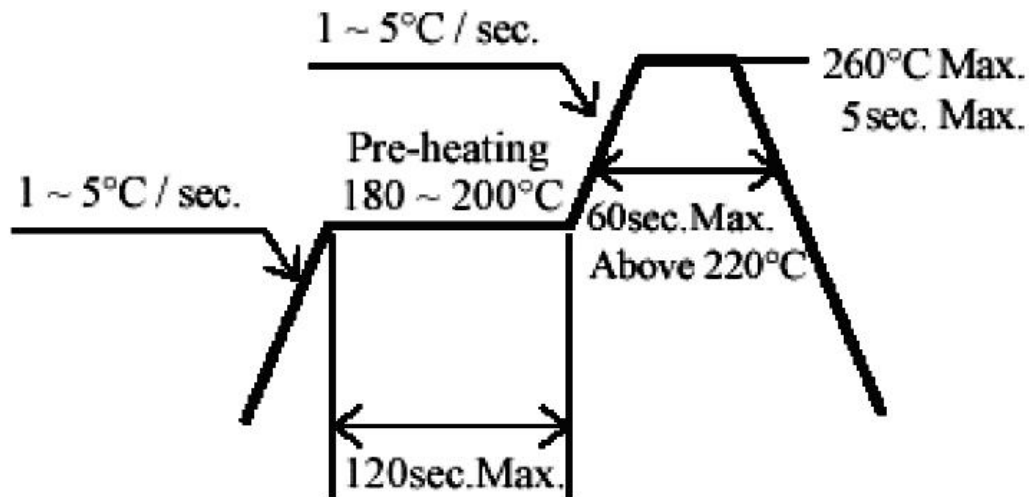
2.4 After opening the package, the LEDs should be kept at 30°C or less and 70%RH or less.

2.5 The LEDs should be used within 168 hours (7 days) after opening the package.

2.6 If the moisture adsorbent material (silica gel) has fabled away or the LEDs have exceeded the storage time, baking treatment should be performed using the following conditions. Baking treatment: 60±5°C for 24 hours.

3. Soldering Condition

3.1 Pb-free solder temperature profile.



3.2 Reflow soldering should not be done more than two times.

3.3 When soldering, do not put stress on the LEDs during heating.

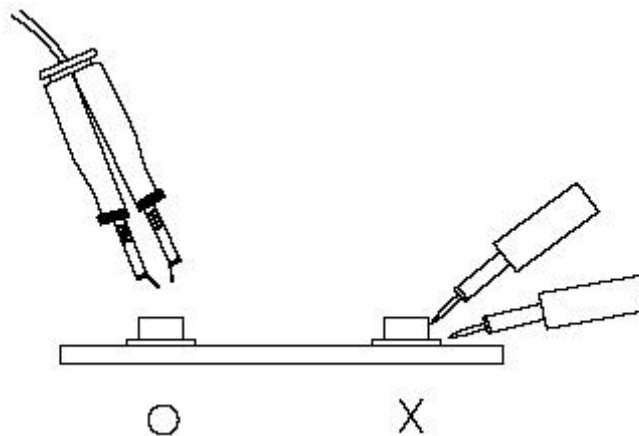
3.4 After soldering, do not warp the circuit board.

4. Soldering Iron

Each terminal is to go to the tip of soldering iron temperature less than 260°C for 5 seconds within once in less than the soldering iron capacity 25W. Leave two seconds and more intervals, and do soldering of each terminal. Be careful because the damage of the product is often started at the time of the hand solder.

5. Repairing

Repair should not be done after the LEDs have been soldered. When repairing is unavoidable, a double-head soldering iron should be used (as below figure). It should be confirmed beforehand whether the characteristics of the LEDs will or will not be damaged by repairing.



6. Caution in ESD

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Static Electricity and surge damages the LED. It is recommended to use a wrist band or anti-electrostatic glove when handling the LED. All devices, equipment and machinery must be properly grounded.

