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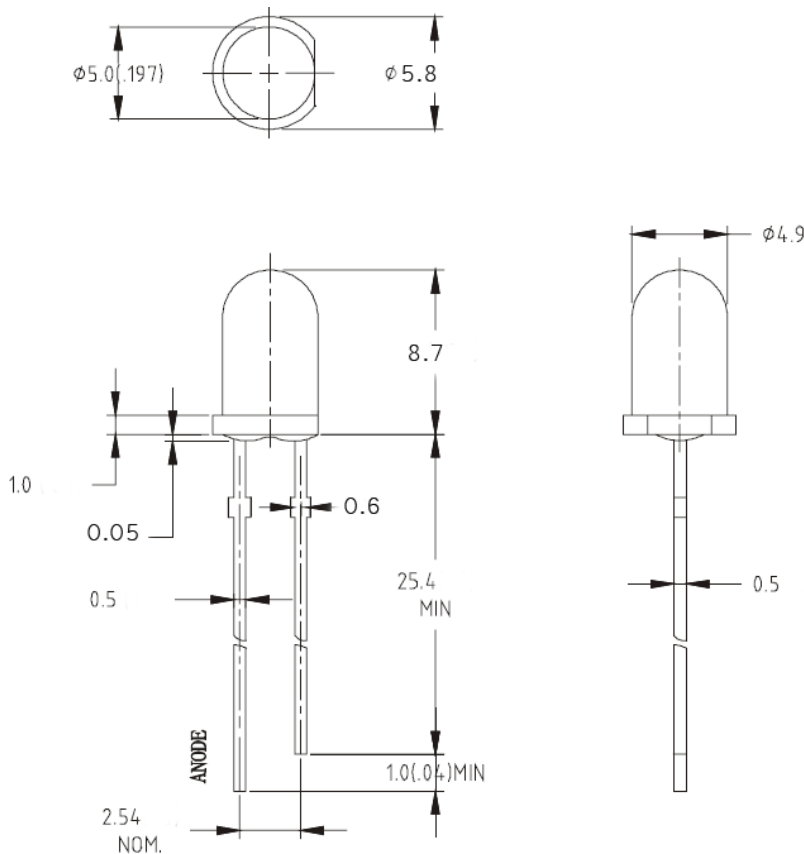
LED 5R70WW2DW3,6 warm white 5mm White diffused 3600mcd

## DATA SHEET

### Features:

- Pb free product—RoHS compliant
- Low power consumption, High efficiency
- Wide viewing angle, High intensity
- I.C. compatible/low current requirement
- Versatile mounting on p.c. board or panel
- General purpose leads

### Package Dimension:



### Notes:

1. All dimensions are in millimeters .
2. Tolerance is  $\pm 0.20$ mm unless otherwise noted.
3. Protruded resin under flange is 1.0mm max
4. Lead spacing is measured where the leads emerge from the package.
5. Caution in ESD:

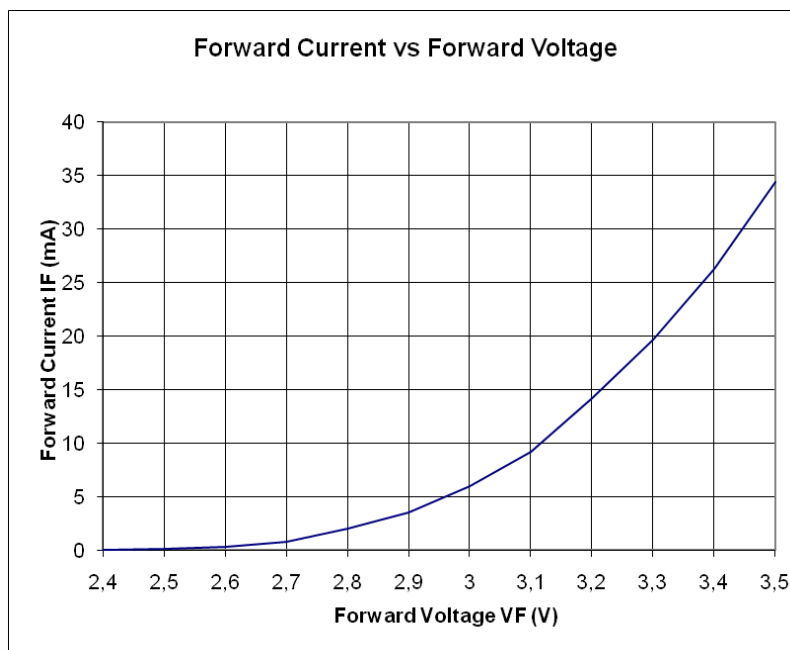
Static Electricity and surge damages the LED. It is recommend to use a wrist band or anti-electrostatic glove when handling the LED. All devices, equipment and machinery must be properly grounded.

## Absolute maximum Ratings at Ta=25°C

Parameter	MAX.	Unit
Peak Forward Current (0,1ms Pulse width)	40	mA
Continuous Forward Current	20	mA
Reverse Voltage	6	V
Derating Linear From 50°C	0.4	mA/°C
Operating Temperature Range	-30°C to + 70°C	
Storage Temperature Range	-30°C to + 70°C	
Lead Soldering Temperature (4mm from body)	260C° for 5 seconds	

## Electrical Optical Characteristics at Ta= 25°C

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Luminous Intensity	Iv	---	3600	---	mcd	IF= 20mA
Viewing Angel		---	70	---	Deg	
Forward Voltage	VF	---	3,3	---	V	IF=20mA
Color temperature	Kelvin	---	3500	---	K	IF=20mA



## Precautions:

### TAKE NOTE OF THE FOLLOWING IN USE OF LED

#### 1. Temperature in use

Since the light generated inside the LED needs to be emitted to outside efficiently, a resin with high light transparency is used; therefore, additives to improve the heat resistance or moisture resistance (silica gel, etc) which are used for semiconductor products such as transistors cannot be added to the resin.

Consequently, the heat resistant ability of the resin used for LED is usually low; therefore, please be careful on the following during use.

Avoid applying external force, stress, and excessive vibration to the resins and terminals at high temperature. The glass transition temperature of epoxy resin used for the LED is approximately 120-130°C.

At a temperature exceeding this limit, the coefficient of linear expansion of the resin doubles or more compared to that at normal temperature and the resin is softened.

If external force or stress is applied at that time, it may cause a wire rupture.

#### 2. Soldering

Please be careful on the following at soldering.

After soldering, avoid applying external force, stress, and excessive vibration until the products go to cooling process (normal temperature), <Same for products with terminal leads>

##### (1) Soldering measurements:

Distance between melted solder side to bottom of resin shall be 1.6mm or longer.

##### (2) Dip soldering :

Pre-heat: 90°C max. (Backside of PCB), Within 60 seconds.

Solder bath: 260±5°C (Solder temperature), Within 5 seconds.

##### (3) Hand soldering: 350°C max. (Temperature of soldering iron tip), Within 3 seconds.

#### 3. Insertion

Pitch of the LED leads and pitch of mounting holes need to be same.

#### 4. Others

Since the heat resistant ability of the LED resin is low, SMD components are used on the same PCB, please mount the LED after adhesive baking process for SMD components. In case adhesive baking is done after LED lamp insertion due to a production process reason, make sure not to apply external force, stress, and excessive vibration to the LED and follow the conditions below.

Baking temperature: 120°C max. Baking time: Within 60 seconds.

If soldering is done sequentially after the adhesive baking, please perform the soldering after cooling down the LED to normal temperature.