

# DAIN

RoHS Compliance

## SPECIFICATION SHEET

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SUPPLIER: B.P.IMPEX PVT. LTD.

PART NAME: LED

MODEL No: 5DR4UD12-A

ITEM TYPE:  $\phi$ 5 MM

COLOUR: RED IN RED

LED TYPE: DIFFUSED

LEAD TYPE: LONG 26mm - 28mm



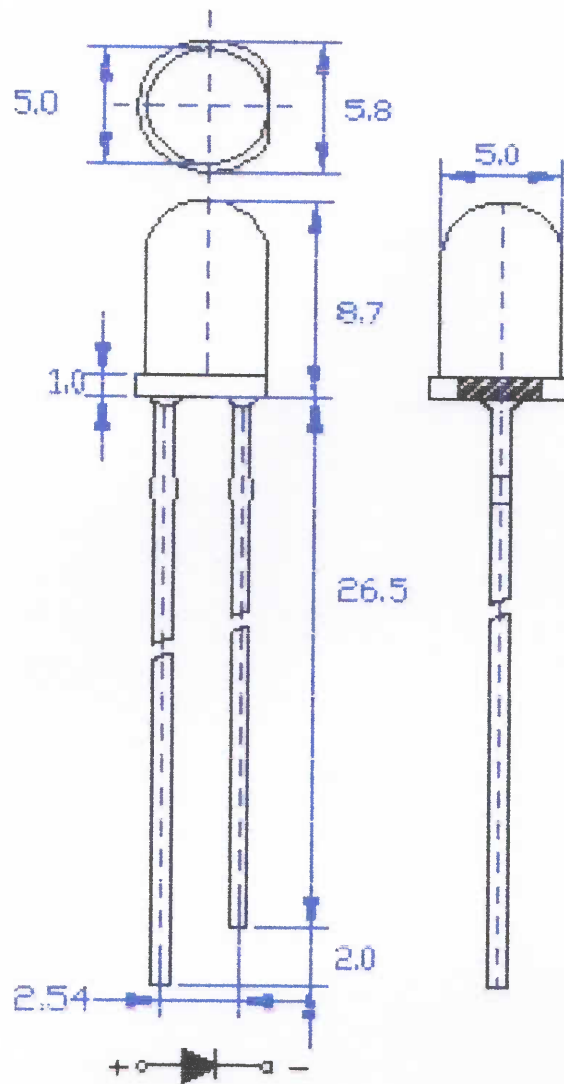
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## LED Specification

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Product Dimensions:



Lens	Material	Emitting Color
Red Diffused	InGaAlP	Red

NOTE:

1. Measuring Unit: MM
2. Not specified Tolerance is plus or minus 0.25 mm 0.010 in
3. More colloids are up to 1.0 mm
4. Specifications are subject to change without prior notice.

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## LED Specification

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Maximum parameter value and temperature=25°C

Parameter	Limit parameters	Unit
Power consumption	100	mW
Pulse current	60	mA
Forward Direct Current	30	mA
Reverse voltage	6	V
Operating Temperature	-55°C to+100°C	
Storage temperature	-55°C to+100°C	
Welding temperature	260°C for 3 seconds	

Photoelectric characteristic parameters and temperature=25°C

Parameter	Symbol	Low	Standard	High	Unit	Test Conditions
Light Intensity	Iv	300		450	mcd	IF=20mA
Beam Angle	2θ1/2		30		deg	IF=20mA
Peak Wave Length	λp	620		630	nm	IF=20mA
Forward Voltage	VF	1.8		2.4	V	IF=20mA
Reverse Current	IR			3	μA	VR=5V

### Remarks:

1. This luminous brightness is based on the human eye on the luminous brightness of the induced curve of the simulated luminous intensity in line with the CIE (International Committee of Optical Committee)
2. The measurement of this luminous angle is the amount of data measured when it is half of its luminous brightness
3. Luminous brightness guarantee error plus or minus 15%

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## LED Specification

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USER'S GUIDE

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### 1. Application

This LED can be used in some ordinary electronic equipment, such as office equipment, communications equipment, housing decoration, if the LED used in some reliability. In the case of higher conditions, such as air transport, traffic control and medical equipment, it is necessary to use the information provided for sale.

### 2. Storage

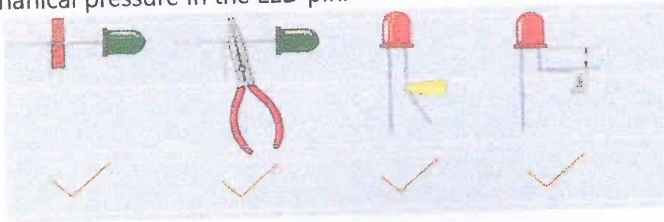
Storage of LED environment, the temperature does not exceed 30 °C, relative humidity does not exceed 70%. It is recommended that LED be in the original box for no more than three months. For use, if you need to increase the storage time, it is recommended to put in the oven, and add desiccant, or filled with nitrogen.

### 3. Cleaning

Care must be taken when cleaning colloids with chemicals, as some chemicals are damaged on colloidal surfaces and cause fading such as trichlorethylene, Ketones and so on. Can be wiped with ethanol, impregnated, the time at room temperature no more than 3 minutes.

### 4. Pin Assembly

- 1) Be sure to bend the bracket 2 mm from the colloid.
- 2) The stent forming must be done with a fixture or by a specialist.
- 3) The stent forming must be done before welding.
- 4) The need to ensure that the pins and spacings are aligned with the circuit board.
- 5) Welding must be carried out at normal temperature, when the LED is properly welded to the PCB board, should try to avoid the application of mechanical pressure in the LED pin.



### 5. Welding

When welding, the bottom of the colloid must be 2mm below the welding, welding, should try to avoid impregnation of LED colloid, just after welding, should avoid the addition of external force on the pin or shake

#### Recommended welding conditions

Soldering Iron		Wave Soldering	
Temperature	260°C Max	Pre-heat	100°C Max
Welding Time	5 sec.Max	Pre-heat time	60sec.Max
	(one time only)	Solder wave	260°C Max
		Soldering time	10sec.Max

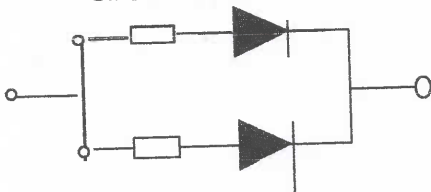
Excessive soldering temperatures and long term welding can cause LED deformation and failure

### 6. Drive Mode

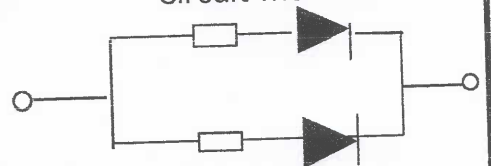
LED The current drive mode

If the LED is in parallel, it is recommended to use line A, in each LED, plus a current limiting resistor to ensure that the brightness of the same LED.

Circuit model A



Circuit model B



### 7. Electrostatic Protection

Static electricity and current drift will cause damage to the LED. InGaN series products should be used when using anti-static devices, such as protective tape and gloves Note: When using the body discharge mode HBM <1000V: machine discharge mode <100V