

TECHNICAL LITERATURE  
FOR  
GaAlAs/GaAlAs Red LED

MODEL NO. GL6UR31T

DOC.NO. DG-92X024

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2. Please obey the instructions mentioned below for actual use of this device.

(1) This device is designed for general electronic equipment.  
Main uses of this device are as follows:

- Computer
- OA equipment
- Telecommunication equipment (Terminal)
- Measuring equipment
- Tooling machine
- AV equipment
- Home appliance, etc.

(2) Please take proper steps in order to maintain reliability and safety. in case this device is used for the uses mentioned below which require high reliability.

- Unit concerning control and safety of a vehicle (air plane, train, automobile etc.)
- Gas leak detection breaker
- Traffic signal
- Fire box and burglar alarm box
- Other safety equipment, etc.

(3) Please don't use for the uses mentioned below which require extremely high reliability

- Space equipment
- Telecommunication equipment (Trunk)
- Nuclear control equipment
- Medical equipment (relating to any fatal element), etc.

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**SHARP**GL6UR31T

## 1. Absolute maximum ratings

(Ta = 25°C)

Parameter	Symbol	Value	Unit
Power dissipation	<b>P</b>	75	mW
Continuous forward current	$I_F$	30	mA
Peak forward current (Note 1)	$I_{FM}$	50	mA
Derating factor	-	(DC) 0.40 (Pulse) 0.67	mA/°C
Reverse voltage	$V_R$	4	V
Operating temperature	$T_{opr}$	-25 ~ +85	°C
Storage temperature	$T_{stg}$	-25 ~ +100	°C
Soldering temperature (Note 2)	$T_{sol}$	260 (within 5 seconds)	°C

(Note 1) Duty ratio = 1/10, Pulse width = 0.1 ms

(Note 2) At the position of 1.6mm from the bottom resin package

## 2. Electro-optical characteristics

(Ta = 25°C)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Forward voltage	$V_F$	$I_F = 20mA$	-	1.85	2.5	V
Luminous intensity (Note 3)	$I_v$		715	950	-	med
Peak emission wavelength	$\lambda_p$		-	660	-	nm
Spectrum radiation bandwidth	$\Delta\lambda$		-	20	-	nm
Reverse current	$I_R$	$V_R = 3V$	-	-	100	$\mu A$
Terminal capacitance	<b>Ct</b>	$V=0V, f=1MHz$	-	25	-	pF

(Note 3) Tolerance ;  $\pm 30\%$

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### 3. When an LED lamp is mounted directly on PWB

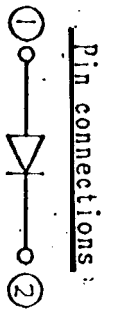
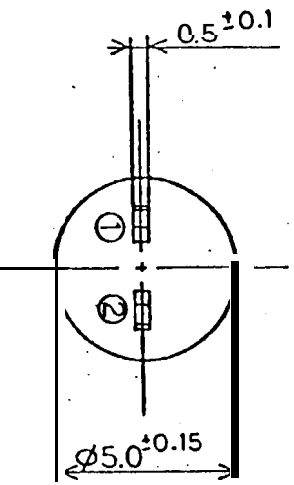
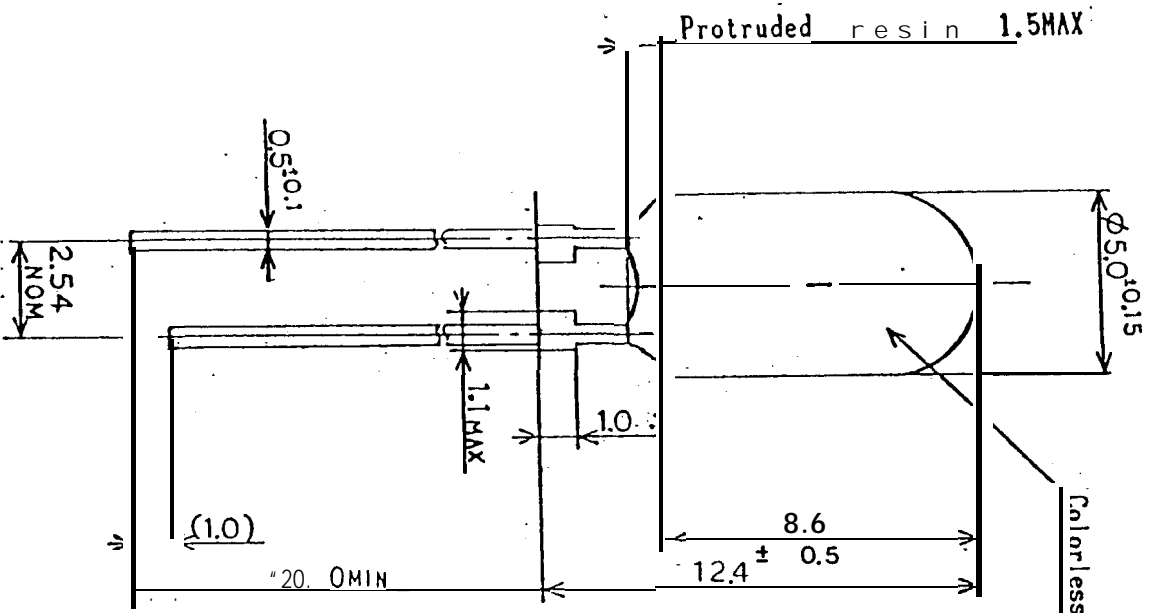
If the bottom face of an LED lamp is mounted directly on single-sided PWB, the base of the lead pins may be subjected to physical stress due to PWB warp, cutting or clinching of lead pins.

Prior to use, be sure to check that no disconnection inside of the resin or damage to resin etc., is found.

When an LED lamp is mounted on double-sided PWB, the heat during soldering affects the resin; therefore, keep the LED lamp more than 1.6mm. afloat above the PWB.

### 4. Others

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UNIT: mm  
 DE ..... be .....

(Note) Cold rolled steel leads are plated with tin  
 ..... have no relation

DATE	REVISE
DRAWING No.	.....