



Oval 5mm Ultra Bright AlGaAs Red LED Lamps

LTL-2D3URK 70/35degree

Features

- High luminous intensity output.
- Low power consumption.
- High efficiency.
- Versatile mounting on P.C. board or panel.
- I.C. compatible/low current requirements.
- Widely viewing angle.

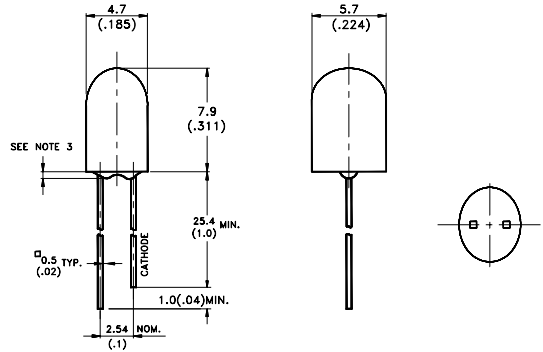
Description

The source color device is made with Aluminum Gallium Arsenide light emitting diode.

LTL-2D3URK is made with high performance AlGaAs dice.

The devices are made with water clear epoxy package, and with 70/35degrees of viewing angle.

Package Dimensions



Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is $\pm 0.25\text{mm}$ (.010") unless otherwise noted.
3. Protruded resin under flange is 1.0mm (.04") max.
4. Lead spacing is measured where the leads emerge from the package.
5. Specifications are subject to change without notice.

Devices

Part No. LTL-	Lens	Source Color
2D3URK	Water Clear	AlGaAs Red

Absolute Maximum Ratings at Ta=25°C

Parameter	Maximum Rating	Unit
Power Dissipation	100	mW
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	200	mA
Continuous Forward Current	40	mA
Derating Linear From 50°C	0.5	mA/°C
Reverse Voltage	4	V
Operating Temperature Range	-40°C to +100°C	
Storage Temperature Range	-55°C to +100°C	
Lead Soldering Temperature [1.6mm (.063") From Body]	260°C for 5 Seconds	

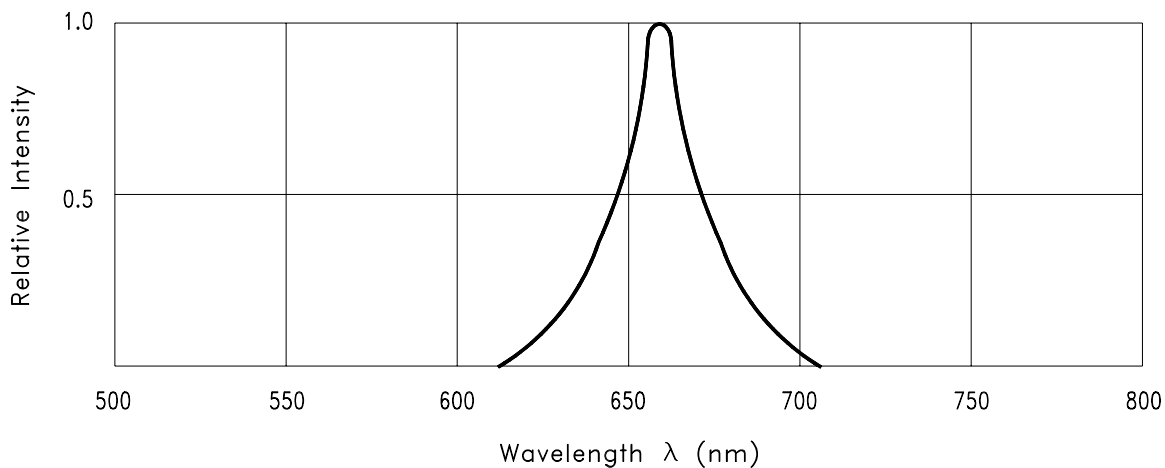


Fig.1 Relative Intensity vs. Wavelength

Electrical /Optical Characteristics and Curves at Ta=25°C

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Luminous Intensity	I_v	100	300		mcd	$I_F=20\text{mA}$ Note 1,2
Viewing Angle	$2\theta^{1/2}$		70/35		deg	Note 3 (Fig. 5)
Peak Emission Wavelength	λ_P		660		nm	Measurement @Peak (Fig.1)
Dominant Wavelength	λ_d		638		nm	Note 6
Spectral Line Half-Width	$\Delta\lambda$		20		nm	
Forward Voltage	V_F		1.8	2.4	V	$I_F=20\text{mA}$
Reverse Current	I_R			100	μA	$V_R=4\text{V}$
Capacitance	C		30		pF	$V_F=0, f=1\text{MHz}$

- Notes:1. Luminous intensity is measured with a light sensor and filter combination that approximates the CIE eye-response curve.
 2. Luminous intensity rank classified products support two ranks.
 3. $\theta^{1/2}$ is the off-axis angle at which the luminous intensity is half the axial luminous intensity.
 4. I_v classification code is marked on each packing bag.
 5. The I_v guarantee should be added $\pm 15\%$.
 6. The dominant wavelength, λ_d is derived from the CIE chromaticity diagram and represents the single wavelength which defines the color of the device.

Typical Electrical/Optical Characteristic Curves (25°C Ambient Temperature Unless Otherwise Noted)

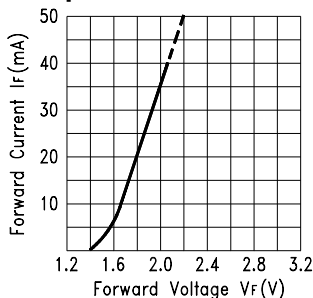


Fig.2 Forward Current vs. Forward Voltage

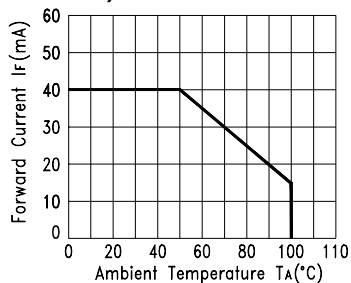


Fig.3 Forward Current Derating Curve

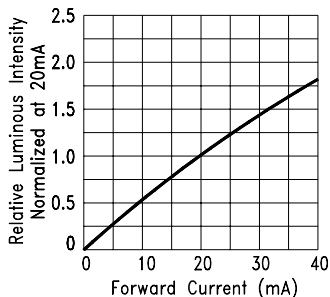


Fig.4 Relative Luminous Intensity vs. Forward Current

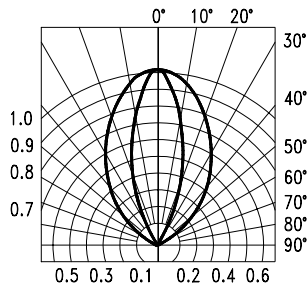


Fig.5 Spatial Distribution