

# L670-40K00

 stem type LED with epoxy resin lens

L670-40K00 is AlGaAs LED mounted on TO-46 stem with epoxy resin lens, being designed for wide viewing angle.

On forward bias, it emits a spectral band of radiation, which peaks at 670nm.

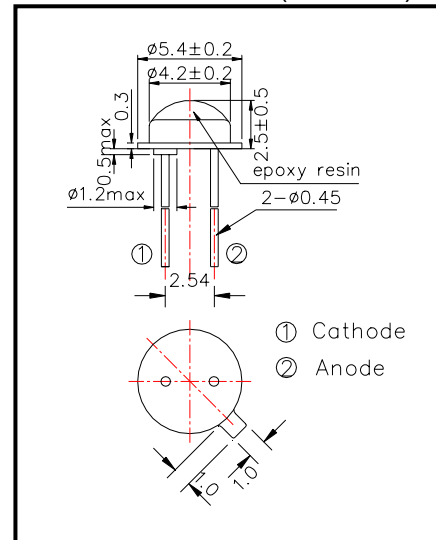
### ◆ Features

- 1) High Output Power
- 2) Wide viewing angle
- 3) High Reliability

### ◆ Specifications

- |                     |                   |
|---------------------|-------------------|
| 1) Product Name     | Infrared LED Lamp |
| 2) Type No.         | L670-40K00        |
| 3) Chip Spec.       |                   |
| (1) Material        | AlGaAs            |
| (2) Peak Wavelength | 670nm             |
| 4) Package          |                   |
| (1) Type            | TO-46 stem        |
| (2) Lens            | Epoxy resin lens  |
| (3) Cap             | Gold plated       |

### ◆ Outer dimension (Unit: mm)



### ◆ Absolute Maximum Ratings

Item	Symbol	Maximum Rated Value	Unit	Ambient Temperature
Power Dissipation	$P_D$	100	mW	$T_a=25^\circ\text{C}$
Forward Current	$I_F$	50	mA	$T_a=25^\circ\text{C}$
Pulse Forward Current	$I_{FP}$	300	mA	$T_a=25^\circ\text{C}$
Reverse Voltage	$V_R$	5	V	$T_a=25^\circ\text{C}$
Operating Temperature	$T_{OPR}$	-30 ~ +80	$^\circ\text{C}$	
Storage Temperature	$T_{STG}$	-30 ~ +100	$^\circ\text{C}$	
Soldering Temperature	$T_{SOL}$	260	$^\circ\text{C}$	

‡Pulse Forward Current condition: Duty=1% and Pulse Width=10us.

‡Soldering condition: Soldering condition must be completed within 3 seconds at  $260^\circ\text{C}$

### ◆ Electro-Optical Characteristics

Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	$V_F$	$I_F=20\text{mA}$		1.80	2.20	V
Reverse Current	$I_R$	$V_R=5\text{V}$			10	$\mu\text{A}$
Total Radiated Power	$P_o$	$I_F=20\text{mA}$	4.0	7.0		mW
Radiant Intensity	$I_E$	$I_F=20\text{mA}$		10		mW/sr
Peak Wavelength	$\lambda_P$	$I_F=20\text{mA}$	660	670	680	nm
Half Width	$\Delta\lambda$	$I_F=20\text{mA}$		20		nm
Viewing Half Angle	$\theta_{1/2}$	$I_F=20\text{mA}$		$\pm 40$		deg.
Rise Time	$t_r$	$I_F=20\text{mA}$		80		ns
Fall Time	$t_f$	$I_F=20\text{mA}$		80		ns

‡Total Radiated Power is measured by Photodyne #500

‡Radiant Intensity is measured by Tektronix J-6512.