

L940-40K00

 stem type LED with epoxy resin lens

L940-40K00 is an 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 940nm.

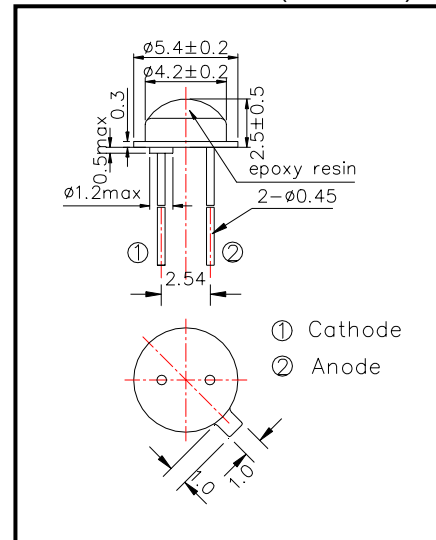
◆ Features

- 1) Wide viewing angle
- 2) High Reliability

◆ Specifications

- 1) Product Name Infrared LED Lamp
- 2) Type No. L940-40K00
- 3) Chip Spec.
 - (1) Material AlGaAs
 - (2) Peak Wavelength 940nm
- 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	140	mW	$T_a = 25^\circ\text{C}$
Forward Current	I_F	100	mA	$T_a = 25^\circ\text{C}$
Pulse Forward Current	I_{FP}	1000	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°C

◆ Electro-Optical Characteristics

Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	V_F	$I_F = 50\text{mA}$		1.30	1.45	V
Reverse Current	I_R	$V_R = 5\text{V}$			10	μA
Total Radiated Power	P_O	$I_F = 50\text{mA}$	11	15		mW
Radiant Intensity	I_E	$I_F = 50\text{mA}$		3.0		mW/sr
Peak Wavelength	λ_P	$I_F = 50\text{mA}$	925	940	955	nm
Half Width	$\Delta\lambda$	$I_F = 50\text{mA}$		50		nm
Viewing Half Angle	$\theta_{1/2}$	$I_F = 50\text{mA}$		± 40		deg.
Rise Time	t_r	$I_F = 50\text{mA}$		1000		ns
Fall Time	t_f	$I_F = 50\text{mA}$		500		ns

‡Total Radiated Power is measured by Photodyne #500

‡Radiant Intensity is measured by Tektronix J-6512.