

# L940-40D52 Stem type LED

L940-40D52 is GaAs LED mounted on TO-18 stem and hermetically sealed with flat glass lens.

On forward bias it emits a spectral band of radiation, which peaks at 940nm.

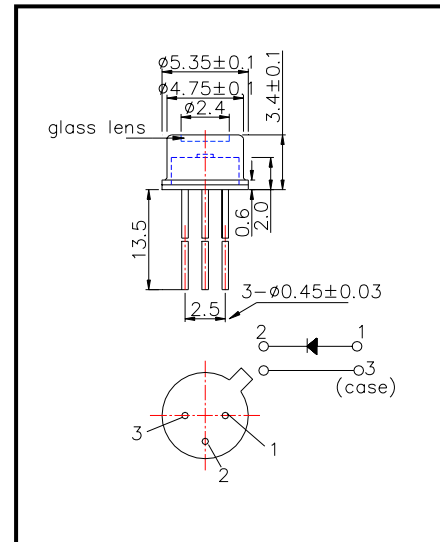
### ◆Features

- 1) Wide Viewing Angle
- 2) High Reliability
- 3) 400micron sq. die

### ◆Specifications

- |                     |                     |
|---------------------|---------------------|
| 1) Product Name     | Infrared LED Lamp   |
| 2) Type No.         | L940-40D52          |
| 3) Chip Spec.       |                     |
| (1) Material        | GaAs                |
| (2) Peak Wavelength | 940nm               |
| 4) Package          |                     |
| (1) Type            | TO-18 stem ( 3pins) |
| (2) Lens            | Flat glass lens     |
| (3) Cap             | Gold plated         |

### ◆Outer dimension (Unit:mm)



### ◆Absolute Maximum Ratings

Item	Symbol	Maximum Rated Value	Unit	Ambient Temperature
Power Dissipation	P <sub>D</sub>	140	mW	T <sub>a</sub> =25°C
Forward Current	I <sub>F</sub>	100	mA	T <sub>a</sub> =25°C
Pulse Forward Current	I <sub>FP</sub>	1000	mA	T <sub>a</sub> =25°C
Reverse Voltage	V <sub>R</sub>	5	V	T <sub>a</sub> =25°C
Operating Temperature	T <sub>OPR</sub>	-30 ~ +80	°C	
Storage Temperature	T <sub>STG</sub>	-30 ~ +100	°C	
Soldering Temperature	T <sub>SOL</sub>	260	°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 <sub>F</sub>	I <sub>F</sub> =50mA		1.30	1.45	V
Reverse Current	I <sub>R</sub>	V <sub>R</sub> =5V			10	uA
Total Radiated Power	P <sub>O</sub>	I <sub>F</sub> =50mA		6		mW
Radiant Intensity	I <sub>E</sub>	I <sub>F</sub> =50mA		3		mW/sr
Peak Wavelength	λ <sub>P</sub>	I <sub>F</sub> =50mA		940		nm
Half Width	Δλ	I <sub>F</sub> =50mA		50		nm
Viewing Half Angle	θ <sub>1/2</sub>	I <sub>F</sub> =50mA		±55		deg.
Rise Time	t <sub>r</sub>	I <sub>F</sub> =50mA		1000		ns
Fall Time	t <sub>f</sub>	I <sub>F</sub> =50mA		500		ns

‡Total Radiated Power is measured by Photodyne #500

‡Radiant Intensity is measured by Tektronix J-6512.