

# L1450-35K42

## NIR Stem Type LED with High Output Power

L1450-35K42 is an InGaAsP LED mounted on a TO-46 stem with an unspherical glass lens. It is designed for high output power use.

On forward bias, it emits a spectral band of radiation which peaks at 1450nm.

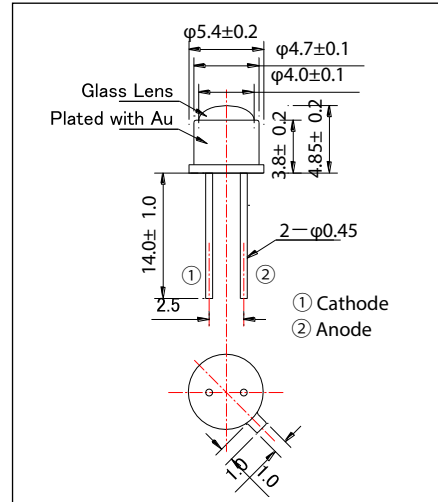
<Features>

- High Radiated Intensity
- High Reliability

<Specifications>

1. Product Name: NIR LED Lamp
2. Type Number: L1450-35K42
3. Chip:
  - Chip material: InGaAs/InP
  - Peak Wavelength: 1450nm
4. Package
  - Type: TO-46 Stem
  - Lens: Unspherical Glass Lens
  - Cap: Gold Plated

Outer Dimension (Unit:mm)



Absolute Maximum Ratings[Ta=25°C]			
Item	Symbol	Maximum Rated Value	Unit
Power Dissipation	PD	130	mW
Forward Current	IF	100	mA
Pulse Forward Current*	IFP	500	mA
Reverse Voltage	VR	5	V
Junction Temperature	Tj	100	°C
Thermal Resistance**	Rthja	330	K/W
Operating Temperature	TOPR	-30 ~ +80	°C
Storage Temperature	TSTG	-40 ~ +100	°C
Soldering Temperature***	TSOL	265	°C

\* Duty=1% and Pulse Width=10μs.

\*\* Junction - ambient, leads 7mm, soldered on PCB

\*\*\* Soldering condition must be completed within 3 second at 265°C.

Electro-Optical Characteristics						
Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	VF	IF=50mA		1.0	1.3	V
Total Radiated Power*	PO	IF=50mA	1.0	2.0		mW
Radiant Intensity**	IE	IF=50mA		2.5		mW/sr
Peak Wavelength	λP	IF=50mA	1400	1450	1500	nm
Half Width	Δλ	IF=50mA		100		nm
Viewing Half Angle	θ1/2	IF=50mA		±8		deg
Rise Time	tr	IF=50mA		10		ns
Fall Time	tr	IF=50mA		10		ns

\* Measured by G8370-85

\*\* Measured by Ando Optical Multi Meter AQ2140&AQ2742

