

L1550-35K42L

Stem type LED with high radiant intensity

L1550-35K42L is an InGaAsP LED mounted on a TO-46 stem and designed for narrow viewing angle +/-8° typ. with hermetical unspherical glass lens can. On forward bias, it emits a spectral band of radiation which peaks at 1550nm.

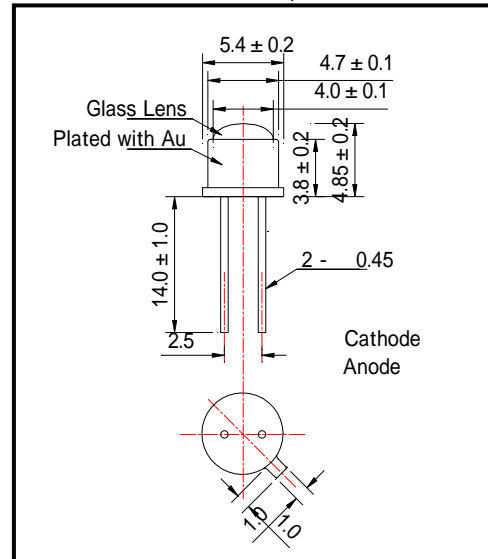
◆Features

- 1) Narrow viewing angle
- 2) High Radiant Intensity
- 3) High Reliability

◆Specifications

- | | |
|---------------------|------------------------|
| 1) Product Name | NIR LED Lamp |
| 2) Type No. | L1550-35K42L |
| 3) Chip Spec. | |
| (1) Material | InGaAs/InP |
| (2) Peak Wavelength | 1550nm |
| 4) Package | |
| (1) Type | TO-46 stem |
| (2) Lens | Unspherical glass lens |
| (3) Cap | Gold plated |

◆Outer dimension(Unit: mm)



◆Absolute Maximum Ratings

Item	Symbol	Maximum Rated Value	Unit	Ambient Temperature
Power Dissipation	P _D	130	mW	T _a =25°C
Forward Current	I _F	100	mA	T _a =25°C
Pulse Forward Current	I _{FP}	1000	mA	T _a =25°C
Reverse Voltage	V _R	3	V	T _a =25°C
Junction Temperature	T _J	100	°C	
Thermal Resistance	R _{thjp}	250	K/W	
Operating Temperature	T _{OPR}	-30 ~ +90	°C	
Storage Temperature	T _{STG}	-40 ~ +100	°C	
Soldering Temperature	T _{SOL}	265	°C	

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

‡Soldering condition: Soldering condition must be completed within 3 seconds at 265°C

‡Thermal resistance: junction – ambient, leads 7mm, soldered on PCB.

◆Electro-Optical Characteristics

Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	V _F	I _F =50mA		0.95	1.35	V
Reverse Current	I _R	V _R =5V			10	uA
Total Radiated Power	P _O	I _F =50mA	0.6	1.1		mW
Radiant Intensity	I _E	I _F =50mA		3.5		mW/sr
Peak Wavelength	λ _P	I _F =50mA	1500	1550	1600	nm
Half Width	Δλ	I _F =50mA		115		nm
Centroid Wavelength	λ _C	I _F =50mA		1525		nm
Viewing Half Angle	θ _{1/2}	I _F =50mA		±8		deg.
Rise Time	t _r	I _F =50mA		10		ns
Fall Time	t _f	I _F =50mA		10		ns

‡Total Radiated Power is measured by G8370-85.

‡Radiant Intensity is measured by AQ2140 & AQ2742