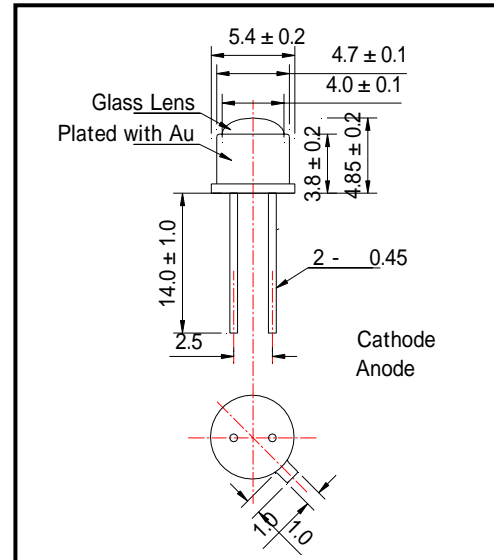


L1050-35K42

Stem type LED with high output power

L1050-35K42 is an InGaAsP LED mounted on a TO-46 stem with a unspherical glass lens being designed for high output power uses. On forward bias, it emits a spectral band of radiation which peaks at 1050nm.

◆ Outer dimension(Unit: mm)



◆ Features

- 1) High radiated intensity
- 2) High Reliability

◆ Specifications

- | | |
|---------------------|------------------------|
| 1) Product Name | NIR LED Lamp |
| 2) Type No. | L1050-35K42 |
| 3) Chip Spec. | |
| (1) Material | InGaAs/InP |
| (2) Peak Wavelength | 1050nm |
| 4) Package | |
| (1) Type | TO-46 stem |
| (2) Lens | Unspherical glass lens |
| (3) Cap | Gold plated |

◆ Absolute Maximum Ratings

Item	Symbol	Maximum Rated Value	Unit	Ambient Temperature
Power Dissipation	P_D	130	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	3	V	$T_a=25^\circ\text{C}$
Operating Temperature	T_{OPR}	-20 ~ +90	$^\circ\text{C}$	
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	$I_F=50\text{mA}$		1.2	1.3	V
Reverse Current	I_R	$V_R=5\text{V}$			10	μA
Total Radiated Power	P_O	$I_F=50\text{mA}$	0.6	1.2		mW
Radiant Intensity	I_E	$I_F=50\text{mA}$		2.0		mW/sr
Peak Wavelength	λ_P	$I_F=50\text{mA}$	1000	1050	1100	nm
Half Width	$\Delta\lambda$	$I_F=50\text{mA}$		100		nm
Viewing Half Angle	$\theta_{1/2}$	$I_F=50\text{mA}$		± 8		deg.
Rise Time	t_r	$I_F=50\text{mA}$		10		ns
Fall Time	t_f	$I_F=50\text{mA}$		10		ns

‡Radiated Power is measured by Ando Optical Multi Meter AQ2140 & AQ2742

‡Radiant Intensity is measured by Epitex's designed and AQ2140 & AQ2742