

# AlGaAs/AlGaAs Infrared Chip ---TK114IRP

## 1. Scope

- The specification applies to AlGaAs infrared chips.
- Type : TK114IRP.

## 2. Structure

- AlGaAs/AlGaAs infrared chip.
- P/N mesa type.
- Electrode P (anode) side : Aluminum or Gold.
- Electrode N (cathode) side : Gold alloy.

## 3. Size

- Chip size : 350 $\mu$ m  $\times$  350 $\mu$ m
- Chip height : 175 $\mu$ m  $\pm$  30 $\mu$ m
- Pattern drawing : per fig. 1

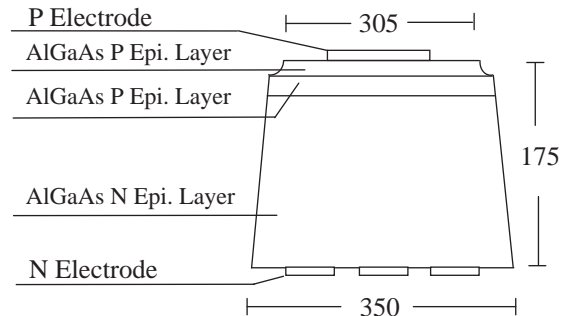
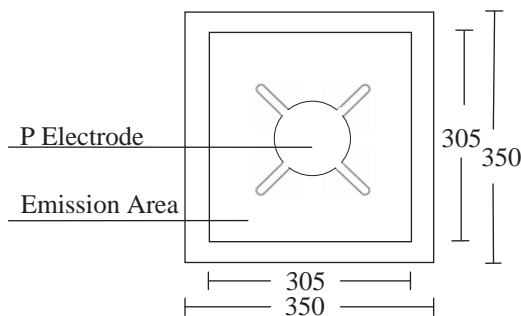
## 4. Electro-Optical Characteristics

(Ta = +25 °C)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> = 20 mA		1.45	1.55	V
Reverse Voltage	V <sub>R</sub>	I <sub>R</sub> = 10 $\mu$ A	5			V
Radiant Power	P <sub>O</sub>	I <sub>F</sub> = 20 mA	2.5			mw
Peak Wavelength	$\lambda_p$	I <sub>F</sub> = 20 mA		850		nm
Spectrum Width of Half Value	$\Delta \lambda$	I <sub>F</sub> = 20 mA		50		nm
Optical Rise Time	T <sub>R</sub>	I <sub>F</sub> = 20 mA		25		ns
Optical Fall Time	T <sub>F</sub>	I <sub>F</sub> = 20 mA		13		ns

## 5. Application

- Wireless earphones, Wireless mouse, CCD of light.



Unit :  $\mu$ m