

AlGaAs/AlGaAs Infrared Chip ---TK0114IRE

1. Scope

- The specification applies to AlGaAs infrared chips.
- Type : TK0114IRE.

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

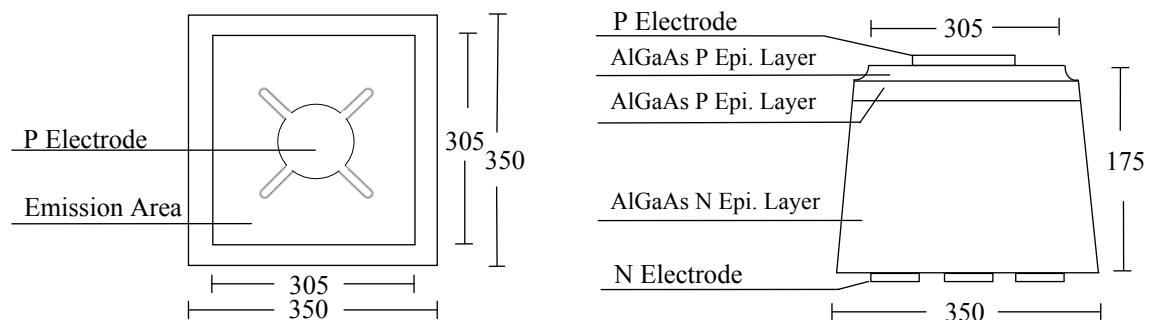
4. Electro-Optical Characteristics

($T_a = +25^\circ\text{C}$)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Voltage	V_F	$I_F = 20\text{mA}$		1.60	1.80	V
Reverse Voltage	V_R	$I_R = 10\mu\text{A}$	5			V
Radiant Power	P_O	$I_F = 20\text{mA}$	3.5			mw
Peak Wavelength	λ_p	$I_F = 20\text{mA}$		770		nm
Spectrum Width of Half Value	$\Delta\lambda$	$I_F = 20\text{mA}$		50		nm
Optical Rise Time	T_R	$I_F = 20\text{mA}$		11		ns
Optical Fall Time	T_F	$I_F = 20\text{mA}$		6		ns

5. Application

- Blood vessel authentication system, security system.



Unit : μm

fig. 1

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Electro-Optical Characteristics Curve

