

# AlGaAs/AlGaAs Infrared Chip ---TK0114IRS

## 1. Scope

- The specification applies to AlGaAs infrared chips.
- Type : TK0114IRS.

## 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	$V_F$	$I_F = 20\text{mA}$		1.40	1.50	V
Reverse Voltage	$V_R$	$I_R = 10\mu\text{A}$	5			V
Radiant Power	$P_O$	$I_F = 20\text{mA}$	2.5			mw
Peak Wavelength	$\lambda_p$	$I_F = 20\text{mA}$		870		nm
Spectrum Width of Half Value	$\Delta\lambda$	$I_F = 20\text{mA}$		50		nm
Optical Rise Time	$T_R$	$I_F = 50\text{mA}$		15		ns
Optical Fall Time	$T_F$	$I_F = 50\text{mA}$		6.3		ns

## 5. Application

- IrDA module.

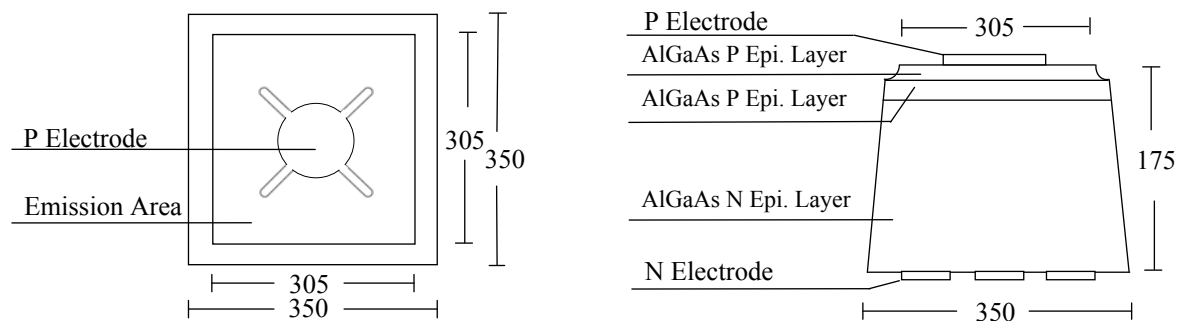


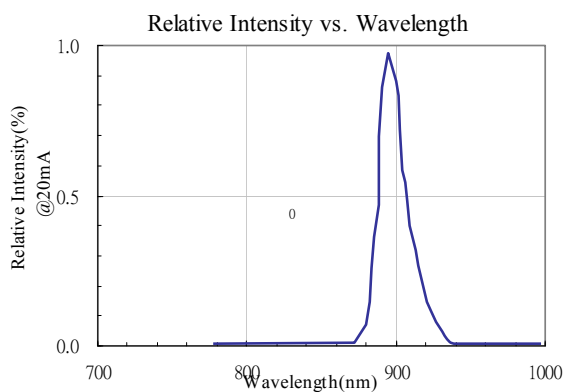
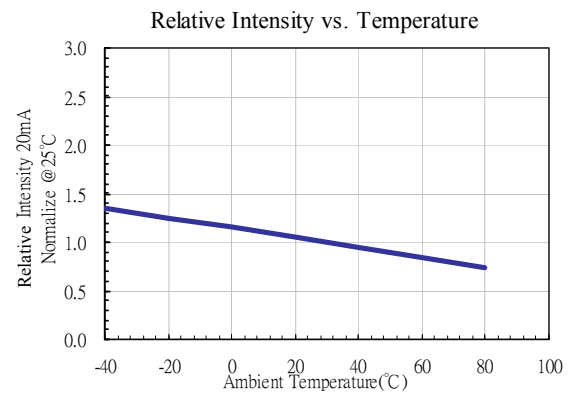
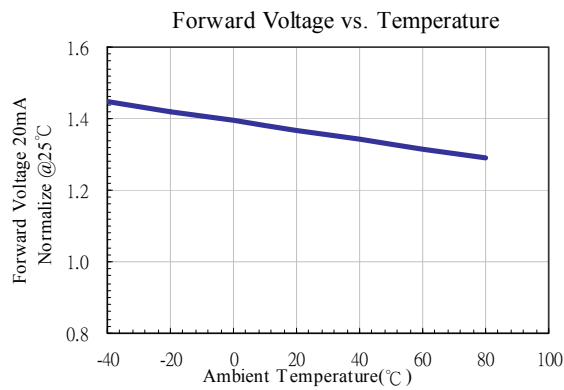
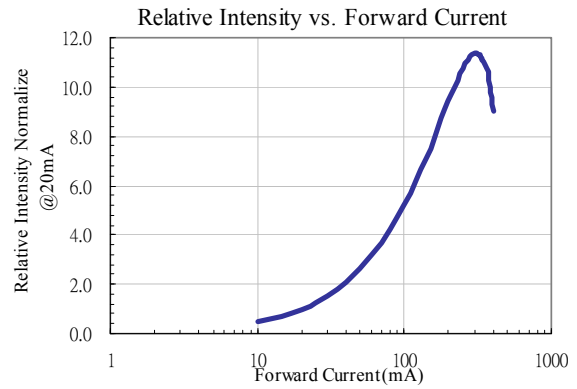
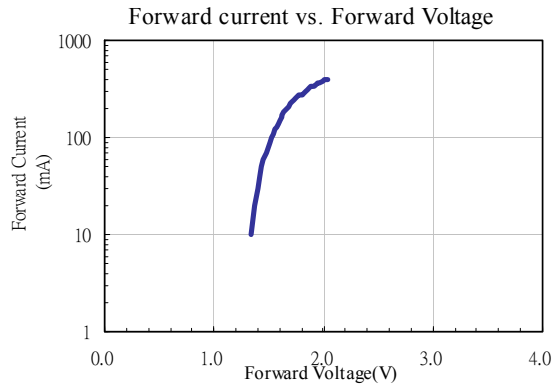
fig. 1

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# AlGaAs/AlGaAs Infrared Chip ---TK0114IRS

## Electro-Optical Characteristics Curve



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