

AlGaAs/GaAs Infrared Chip ---TK0712IRA

1. Scope

- The specification applies to AlGaAs infrared chips.
- Type : TK0712IRA.

2. Structure

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

3. Size

- Chip size : $300\mu\text{m} \times 300\mu\text{m}$
- Chip height : $250\mu\text{m} \pm 30\mu\text{m}$
- Pattern drawing : per fig. 1

4. Electro-Optical Characteristics

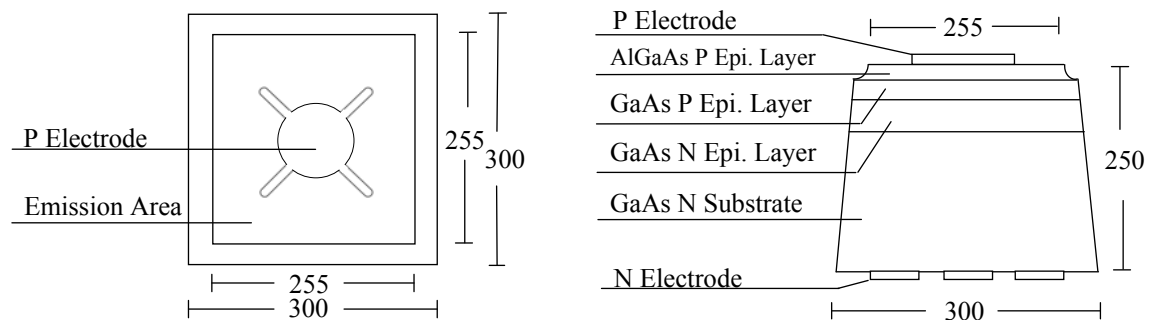
($T_a = +25^\circ\text{C}$)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Voltage	V_F	$I_F = 250\text{mA}$		1.70	1.80	V
Reverse Voltage	V_R	$I_R = 10\mu\text{A}$	5			V
Radiant Power	P_O	$I_F = 20\text{mA}$	1.4			mw
Peak Wavelength	λ_P	$I_F = 20\text{mA}$		940		nm
Spectrum Width of Half Value	$\Delta\lambda$	$I_F = 20\text{mA}$		50		nm

* High current 250mA Vf test is by 3msec pulse condition, no guarantee for life quality after test.

5. Application

- Remote control, Receiver module.
- Home appliance : TV Set, Air condition, Audio equipment, Camera, Toys etc.



Unit : μm

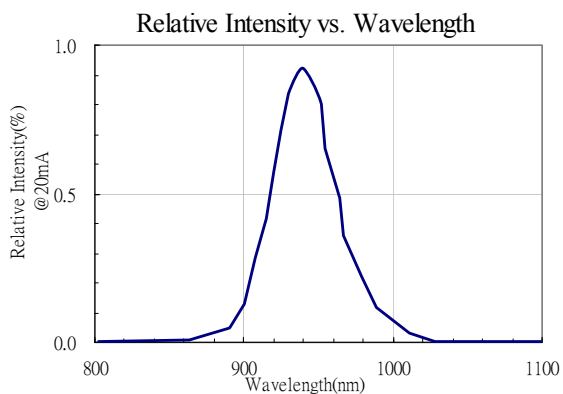
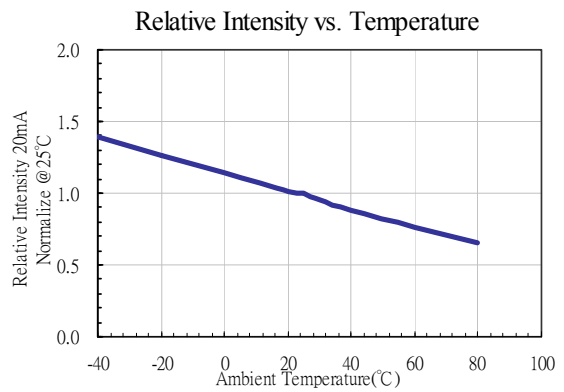
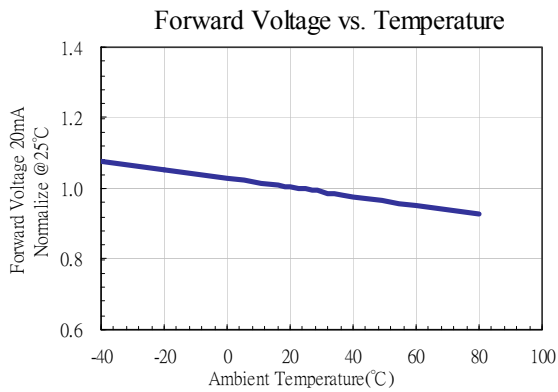
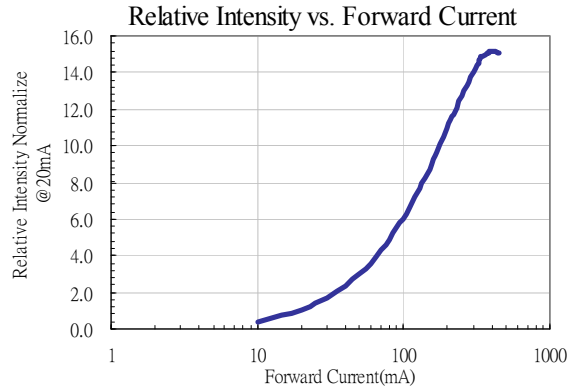
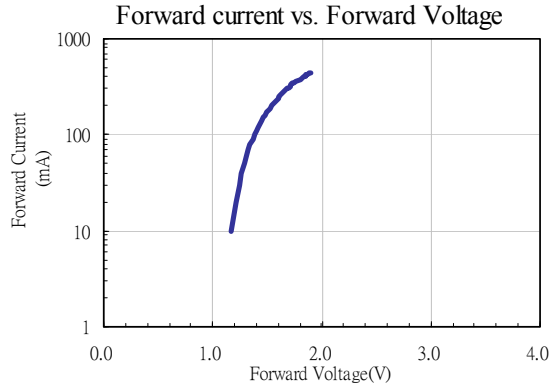
fig. 1

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Electro-Optical Characteristics Curve



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