

AlGaAs/Si High Power IR Chip ---TK0510IRA

1. Scope

- AlGaAs High power IR LED chip.

2. Structure

- AlGaAs on Silicon
- N Electrode (cathode) side : Gold.
- P Electrode (anode) side : Gold alloy.

3. Size

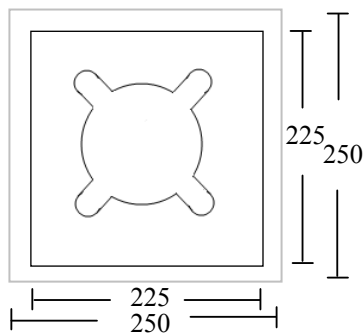
- Chip size : 250um × 250um
- Chip height : 170um ± 30um
- Pattern drawing : per fig. 1

4. Electro-Optical Characteristics

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

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Voltage	V_F	$I_F = 20\text{mA}$			1.55	V
Reverse Current	I_R	$V_R = 5\text{V}$			1	uA
Axis Radiant Power	P_O	$I_F = 20\text{mA}$	6.0	※		mW/sr
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
Optical Rise Time	T_R	$I_F = 20\text{mA}$		20		ns
Optical Rise Time	T_F	$I_F = 20\text{mA}$		20		ns

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- Rank F : 6.0 ~ 6.99
 - Rank G : 7.0 ~ 7.99
 - Rank H : 8.0 ~ 8.99



Unit : μm

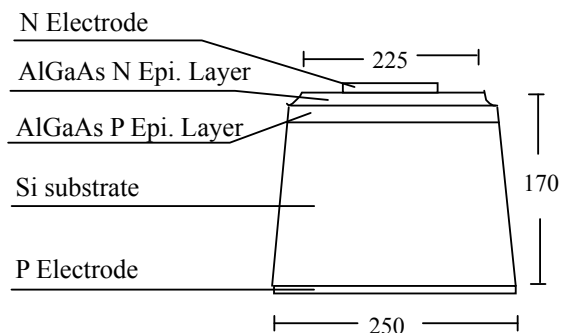


fig. 1

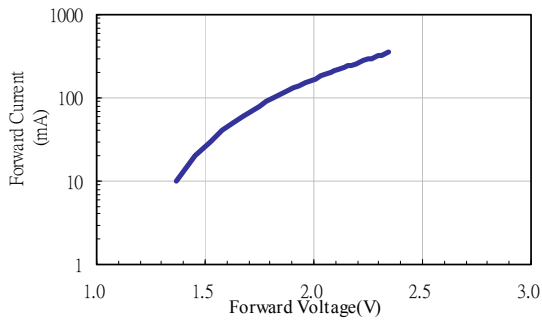
2014.Oct



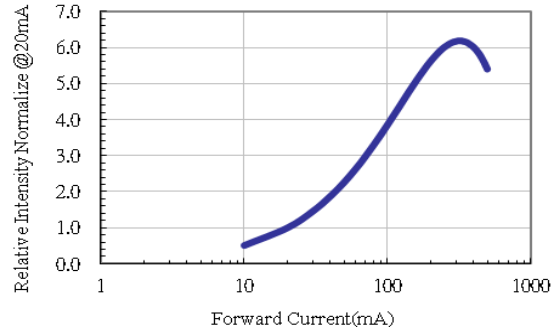
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Electro-Optical Characteristics Curve

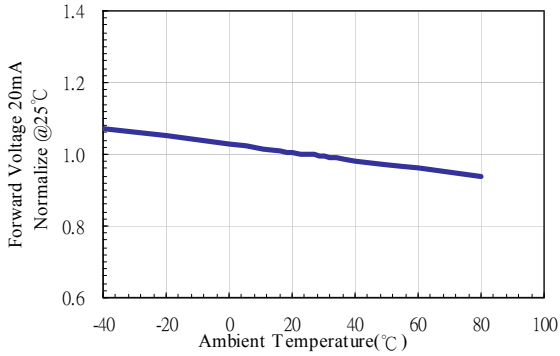
Forward current vs. Forward Voltage



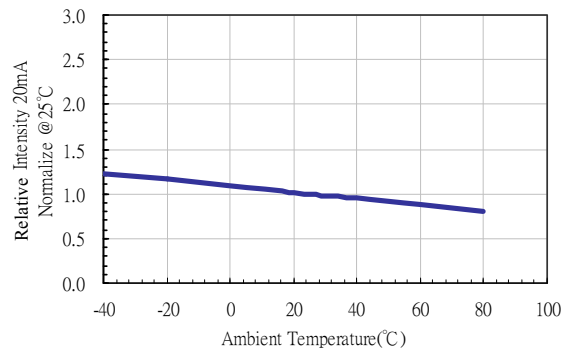
Relative Intensity vs. Forward Current



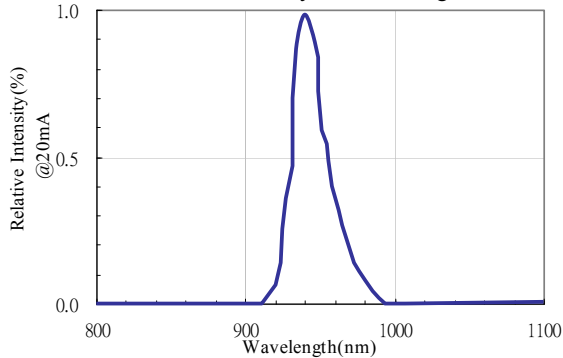
Forward Voltage vs. Temperature



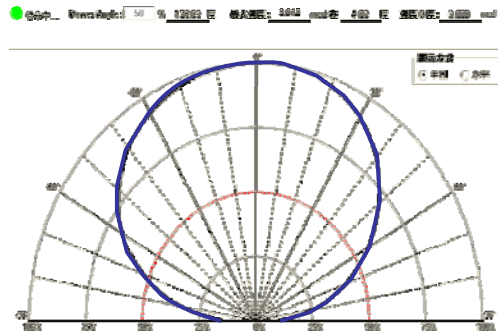
Relative Intensity vs. Temperature



Relative Intensity vs. Wavelength



Half power angle on TO-18



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