

AlGaInP/GaAs Super Red Chip ---TK0509SRN

1. Scope

- The specification applies to AlGaInP LED chips.
- Type : TK0509SRN.

2. Structure

- AlGaInP/GaAs super red LED chip.
- Electrode P (anode) side : Aluminum or Gold.
- Electrode N (cathode) side : Gold alloy.

3. Size

- Chip size : $225\mu\text{m} \times 225\mu\text{m}$
- Chip height : $180\mu\text{m} \pm 30\mu\text{m}$
- Pattern drawing : per fig. 1

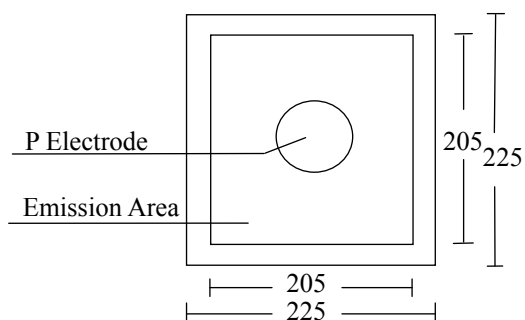
4. Electro-Optical Characteristics

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

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Voltage	V_F	$I_F = 20\text{ mA}$		2.00	2.30	V
Reverse Voltage	V_R	$I_R = 10\text{ }\mu\text{A}$	5			V
Luminous Intensity	I_V	$I_F = 20\text{ mA}$		※		mcd
Wavelength	λ_p / λ_d	$I_F = 20\text{ mA}$		645/631		nm
Spectrum Width of Half Value	$\Delta \lambda$	$I_F = 20\text{ mA}$		20		nm

- ※
- Rank D : min. ≥ 20.0 , $25.0 \leq \text{avg.} < 35.0$
 - Rank E : min. ≥ 25.0 , $35.0 \leq \text{avg.} < 45.0$
 - Rank F : min. ≥ 35.0 , $45.0 \leq \text{avg.} < 55.0$
 - Rank G : min. ≥ 40.0 , $55.0 \leq \text{avg.} < 65.0$

- Rank H : min. ≥ 50.0 , $65.0 \leq \text{avg.} < 75.0$
- Rank I : min. ≥ 60.0 , $75.0 \leq \text{avg.} < 85.0$
- Rank J : min. ≥ 70.0 , $85.0 \leq \text{avg.} < 95.0$



Unit : μm

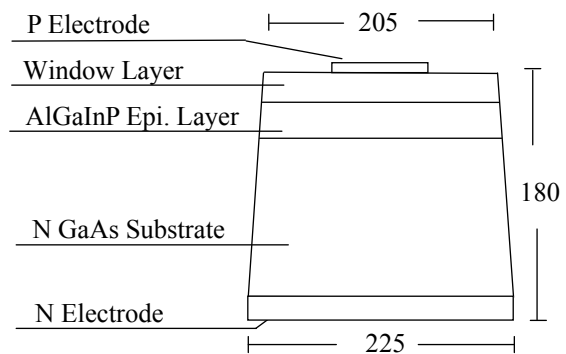


fig. 1

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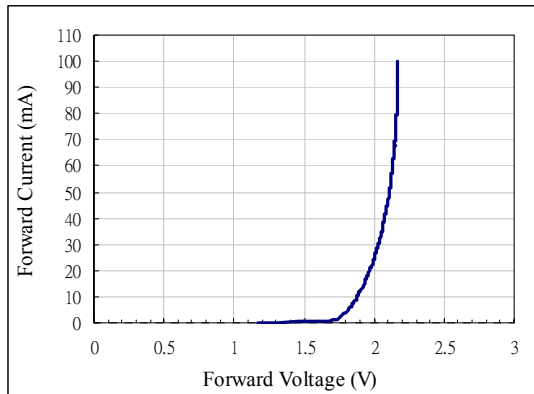
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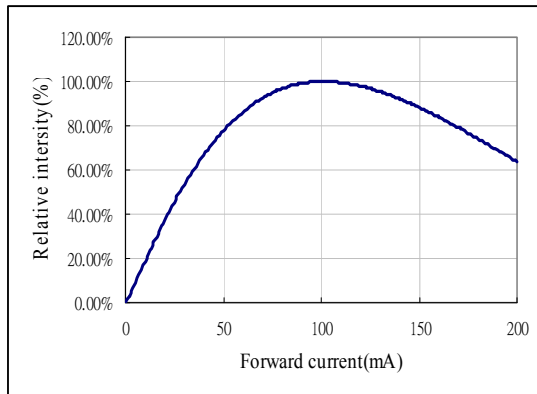
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Electro-Optical Characteristics Curve

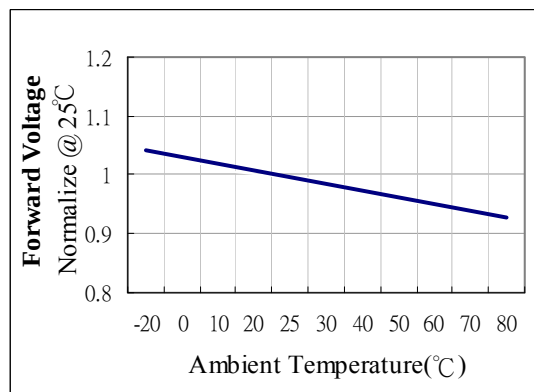
Forward current vs. Forward voltage



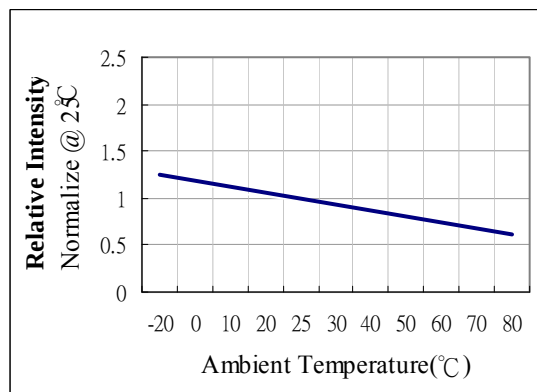
Relative intensity vs. Forward current



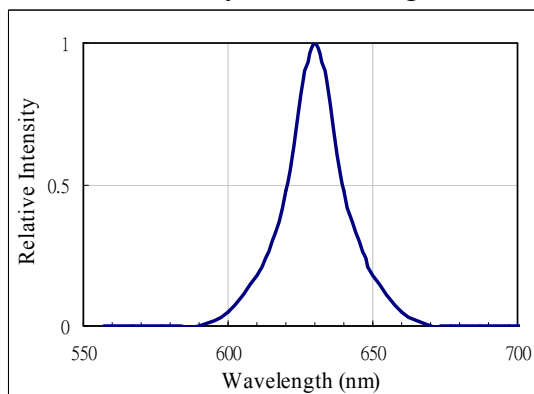
Forward voltage vs. Temperature



Relative intensity vs. Temperature



Relative intensity vs. Wavelength



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