

> Mechanical Specification:

(1) Dimension

- Chip size: 4mil x 8mil ($104 \pm 15\mu\text{m} \times 204 \pm 15\mu\text{m}$)
- Thickness: 3.1mil ($80 \pm 10 \mu\text{m}$)
- Anode pad: $45 \pm 10 \mu\text{m} \times 64 \pm 10 \mu\text{m}$
- Cathode pad: $45 \pm 10 \mu\text{m} \times 64 \pm 10 \mu\text{m}$

(2) Metallization

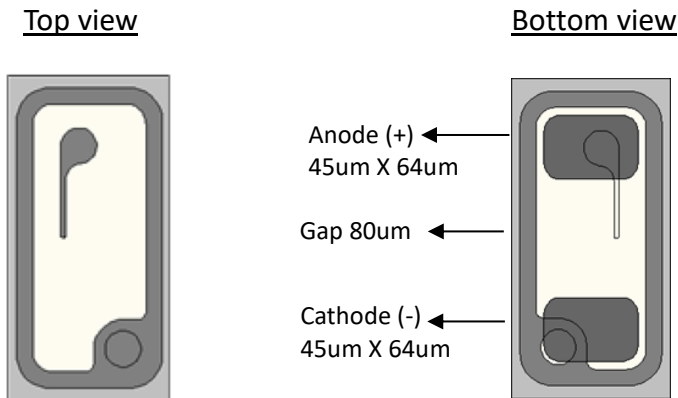
- Electrode pad: Au

Features:

- High Power Density
- Low Rth and Long life time

Applications:

- RGB Display Signage



> Electro-optical Characteristics at 25°C⁽¹⁾:

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Voltage	Vf1	If = 10μA	1.9	-	-	V
	Vf2	If = 1mA	-	2.6	2.8	V
Reverse Current	Ir	Vr = 10V	-	-	0.5	uA
Dominant Wavelength ⁽²⁾	λd	If = 1mA	462	-	470	nm
Spectra Half-width	Δλ	If = 1mA	-	25	-	nm
Luminous intensity ⁽³⁾	Iv	If = 1mA	10	-	15	mcd
			15	-	20	
			20	-	25	

Note:

(1) ESD protection during chip handling is recommended.

(2) Basically, the wavelength span is 8nm; however, customers' special requirements are also welcome.

(3) Luminous intensity is measured by EPISTAR's equipment on bare chips.

> Absolute Maximum Ratings:

Parameter	Symbol	Condition	Rating	Unit
Forward DC Current	If	Ta = 25°C	≤ 10	mA
Reverse Voltage	Vr	Ta = 25°C	≤ 10	V
Junction Temperature	Tj	-	≤ 115	°C
Storage Temperature	Tstg	Chip	-40 ~ +85	°C
		Chip-on-tape/storage	5 ~ 35	°C
		Chip-on-tape/transportation	-20 ~ +65	°C
Temperature during Packaging	-	-	260(<5sec)*	°C

Note: Maximum ratings are package dependent. The above maximum ratings were determined using by EPISTAR standard. Forward current and junction temperature will cause the damage of LEDs if over the absolute maximum ratings.

*Reflow soldering should not be done more than two times.

> Characteristic Curves:

Fig.1 – Relative luminous Intensity vs. Forward Current

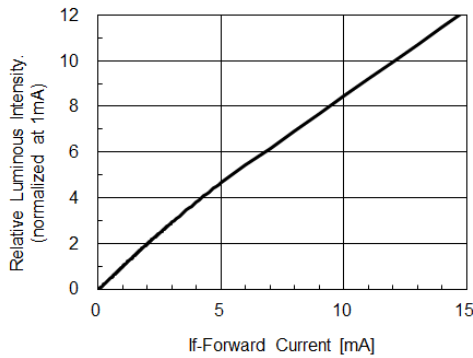


Fig.2 – Forward Current vs. Forward Voltage

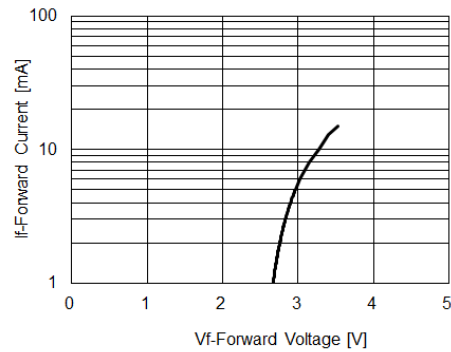


Fig.3 – Relative Intensity (@1mA) vs. Ambient Temperature

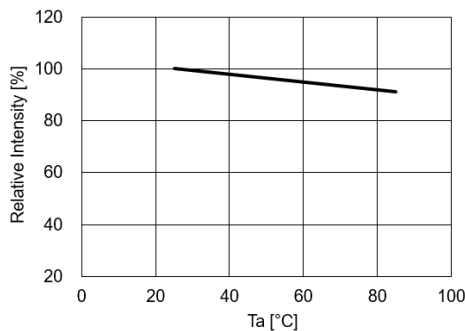


Fig.4 – Forward Voltage (@1mA) vs. Ambient Temperature

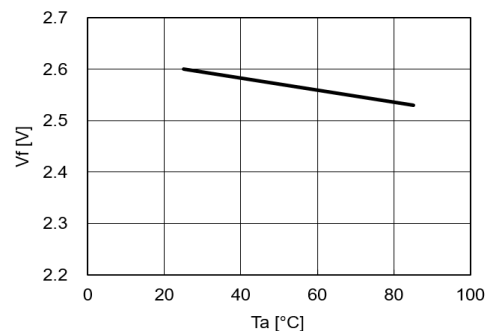


Fig.5 – Dominant Wavelength (@1mA) vs. Ambient Temperature

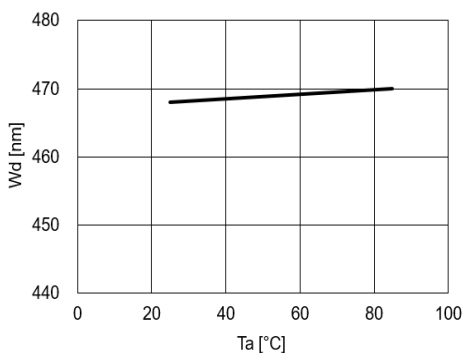


Fig.6 – Maximum Driving Forward DC Current vs. Ambient Temperature (De-rating based on Tj max. = 115°C)

