

### > Mechanical Specification:

#### (1) Dimension

- Chip size: 25 mil x 29 mil ( $645 \pm 25 \mu\text{m} \times 745 \pm 25 \mu\text{m}$ )
- Thickness: 5.5 mil ( $140 \pm 10 \mu\text{m}$ )
- P bonding pad: 3.5 mil ( $90 \pm 10 \mu\text{m}$ )
- N bonding pad: 3.5 mil ( $90 \pm 10 \mu\text{m}$ )

#### (2) Metallization

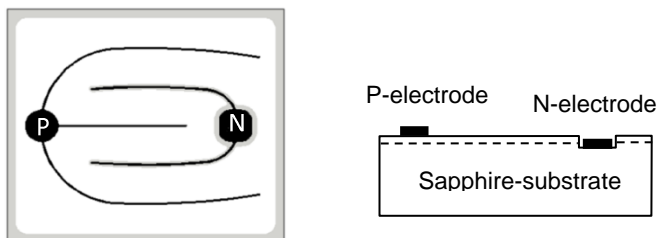
- Topside P electrode: Au alloy
- Topside N electrode: Au alloy

#### Features:

- High radiant flux
- Long operation life
- Lambertian radiation

#### Applications:

- Commercial Lighting



### > Electro-optical Characteristics at 25°C: <sup>(1)</sup>

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit	
Forward Voltage	V <sub>f1</sub>	I <sub>f</sub> = 10uA	1.6	-	-	V	
	V <sub>f</sub>	I <sub>f</sub> = 120mA	-	3.2	3.4	V	
Peak Wavelength <sup>(2)</sup>	λ <sub>p</sub>	I <sub>f</sub> = 120mA	400	-	415	nm	
Spectra Half-width	Δλ	I <sub>f</sub> = 120mA	-	15	-	nm	
Radiant Flux <sup>(3)(4)</sup>	P <sub>o</sub>	A69	I <sub>f</sub> = 120mA	200	-	210	mW
		A70		210	-	220	
		A71		220	-	230	
		A72		230	-	240	

Note:

- (1) ESD protection during chip handling is recommended.
- (2) Basically, the wavelength span is 15nm; however, customers' special requirements are also welcome.
- (3) Radiant flux is determined by using an Ag-plated TO-can header without an encapsulant.
- (4) Radiant flux measurement allows a tolerance of ±15%.

## > Absolute Maximum Ratings:

Parameter	Symbol	Condition	Rating	Unit
Forward DC Current	If	Ta = 25°C	≤ 240	mA
Junction Temperature	Tj	-	≤ 125	°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	-	-	280(<10sec)	°C

Note: Maximum ratings are package dependent. The above maximum ratings were determined using a Printed Circuit Board (PCB) without an encapsulant. Stresses in excess of the absolute maximum ratings such as forward current and junction temperature may cause damage to the LED.

## > Characteristic Curves:

Fig.1 – Relative luminous Intensity vs. Forward Current

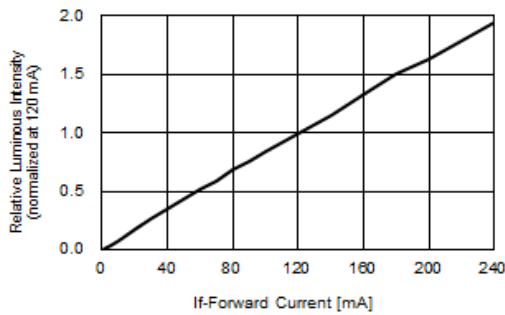


Fig.2 – Forward Current vs. Forward Voltage

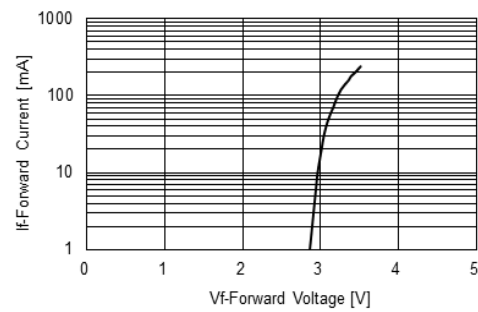


Fig.3 – Relative Intensity (@120mA) vs. Ambient Temperature

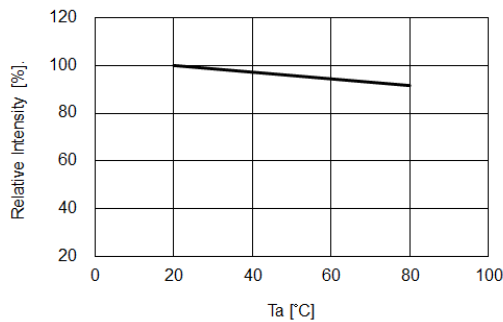


Fig.4 – Forward Voltage (@120mA) vs. Ambient Temperature

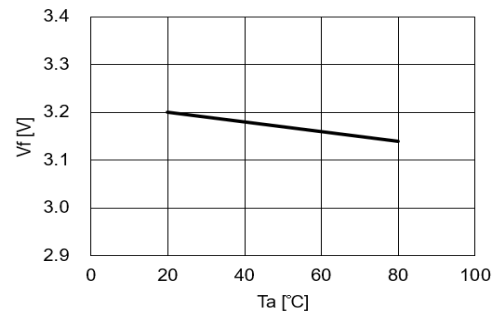


Fig.5 – Peak Wavelength (@120mA) vs. Ambient Temperature

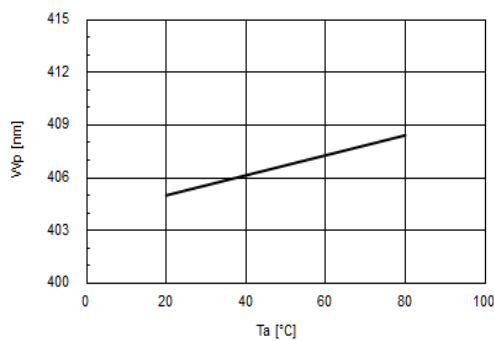


Fig.6 – Maximum Driving Forward DC Current vs. Ambient Temperature (De-rating based on Tj max. = 125°C)

