

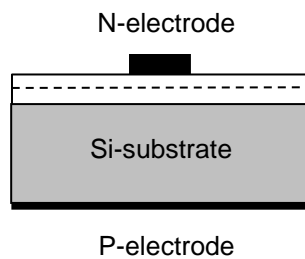
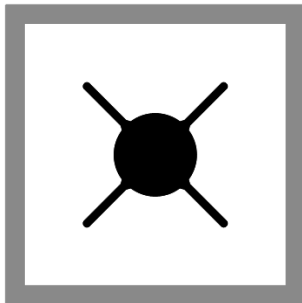
> Mechanical Specification:

(1) Dimension

- Chip size: 14 mil x 14 mil ($363\pm 25\ \mu\text{m}$ x $363\pm 25\ \mu\text{m}$)
- Thickness: 6.7 mil ($170\pm 25\ \mu\text{m}$)
- N bonding pad: 3.9 mil ($100\pm 10\ \mu\text{m}$)

(2) Metallization

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



Features:

- High radiant flux
- Thin film structure
- Vertical electrode
- High driving current

Applications:

- Sensing system
- Medical appliances
- Wafer inspection

> Electro-optical Characteristics at 25°C:

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit	
Forward Voltage	Vf1	If = 10 μ A	0.3	-	-	V	
	Vf2	If = 100mA	-	1.1	1.5	V	
Reverse Current	I _r	V _r = 5V	-	-	5.0	μ A	
Peak Wavelength ⁽¹⁾	λ_p	If = 100mA	1250	1300	1350	nm	
Spectra Half-width	$\Delta\lambda$	If = 100mA	-	83	-	nm	
Radiant flux ⁽²⁾⁽³⁾	P _o	E11	If = 100mA	13	-	-	mW
		E12		15	-	-	
		E13		18	-	-	

Note:

(1) Basically, the wavelength span is 100nm; however, customers' special requirements are also welcome.

(2) Customers' special requirements are also welcome.

(3) Radiant flux is measured by EPISTAR's equipment on bare chips.

> Absolute Maximum Ratings:

Parameter	Symbol	Condition	Rating	Unit
Forward DC Current	If	Ta = 25°C	≤ 150	mA
Reverse Voltage	Vr	Ta = 25°C	≤ 5	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	-	-	280(<10sec)	°C

Note: Maximum ratings are package dependent. The above maximum ratings were determined using a Metal Core Printed Circuit Board (MCPCB) 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 Radiant Flux vs. Forward Current

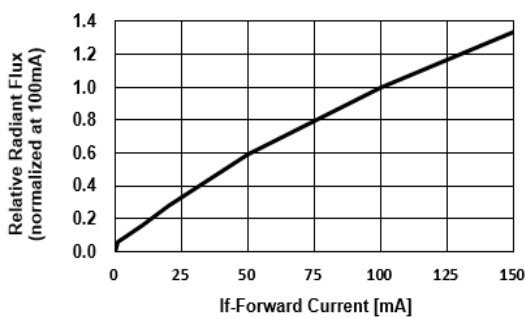


Fig.2 – Forward Current vs. Forward Voltage

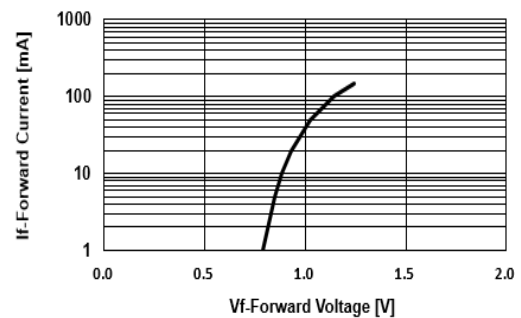


Fig.3 – Relative Radiant Flux (@100mA) vs. Ambient Temperature

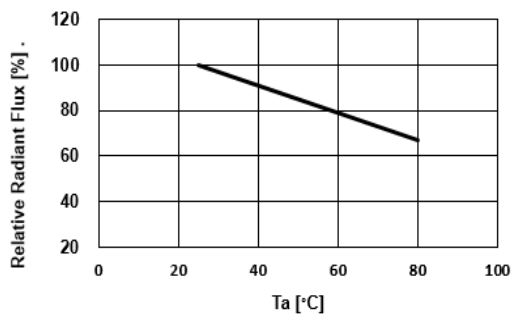


Fig.4 – Forward Voltage (@100mA) vs. Ambient Temperature

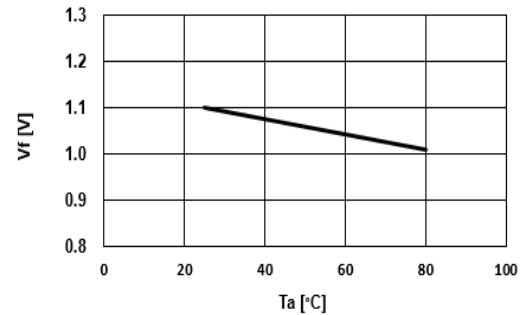


Fig.5 – Peak Wavelength (@100mA) vs. Ambient Temperature

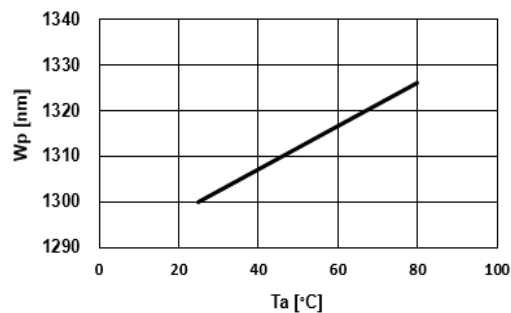


Fig.6 – Maximum Driving Forward DC Current vs. Ambient Temperature (De-rating based on Tj max. = 115°C)

