

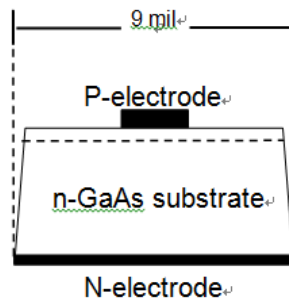
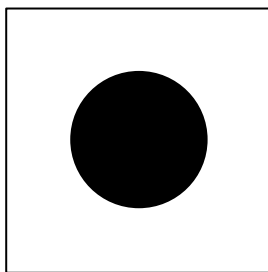
> Mechanical Specification:

(1) Dimension

- Chip size: 9 mil x 9 mil ($230\pm 25\ \mu\text{m}$ x $230\pm 25\ \mu\text{m}$)
- Thickness: 6.7 mil ($170\pm 25\ \mu\text{m}$)
- P bonding pad: 3.9 mil ($100\pm 10\ \mu\text{m}$)

(2) Metallization

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



Features:

- P-side up
- Peak wavelength: 650nm
- ITO layer on top

Applications:

- Data Communication
- Industrial Electronics

> Electro-optical Characteristics at 25°C:

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit	
Forward Voltage	Vf1	If = 10 μ A	1.35	-	-	V	
	Vf2	If = 20mA	-	2.0	2.4	V	
Reverse Current	Ir	Vr = 10V	-	-	10	μ A	
Peak Wavelength ⁽¹⁾	λ_p	If = 20mA	640	650	660	nm	
Spectra Half-width	$\Delta\lambda$	If = 20mA	-	30	-	nm	
Switching time ⁽²⁾	tr/tf	If = 10mA	-	15/15	30/30	ns	
Radiant Flux ^{(2) (3)}	Po	E1	If = 20mA	0.2	-	-	mW
		E2		0.5	-	-	
		E3		0.8	-	-	

Note:

(1) Basically, the wavelength span is 20nm; however, customers' special requirements are also welcome.

(2) Measured by EPISTAR's equipment on bare chips.

(3) Customers' special requirements are also welcome.

> Absolute Maximum Ratings:

Parameter	Symbol	Condition	Rating	Unit
Forward DC Current	If	Ta = 25°C	≤ 30	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	-	-	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 Radiant Flux vs. Forward Current

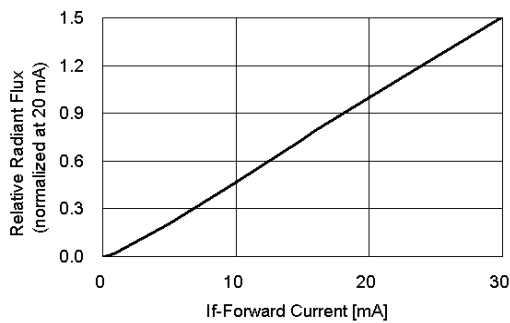


Fig.2 – Forward Current vs. Forward Voltage

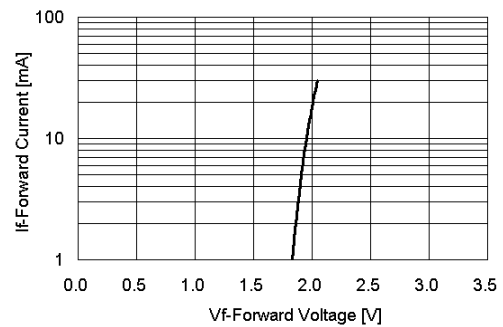


Fig.3 – Relative Radiant Flux (@20mA) vs. Ambient Temperature

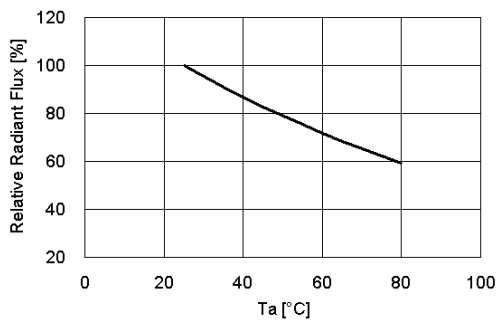


Fig.4 – Forward Voltage (@20mA) vs. Ambient Temperature

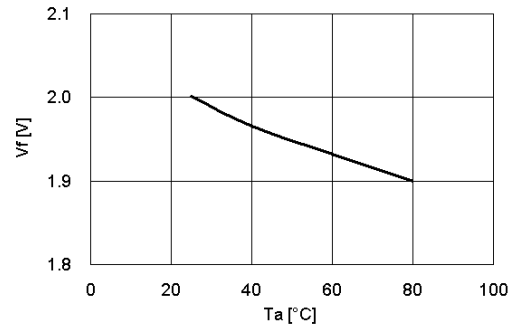


Fig.5 – Peak Wavelength (@20mA) vs. Ambient Temperature

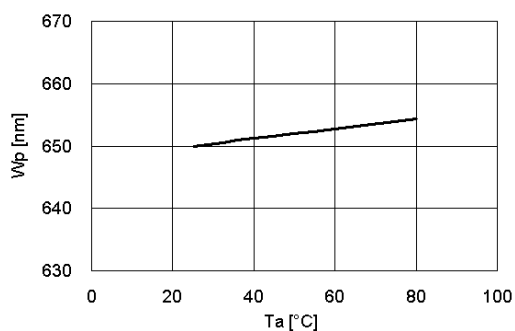


Fig.6 – Maximum Driving Forward DC Current vs. Ambient Temperature (Derating based on Tj max. = 115°C)

