

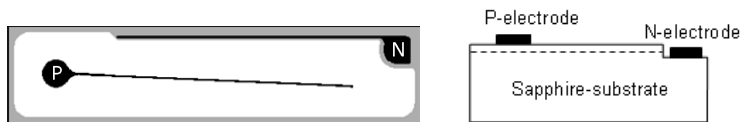
> Mechanical Specification:

(1) Dimension

- Chip size: 8mil x 36mil ($215 \pm 25 \mu\text{m}$ x $925 \pm 25 \mu\text{m}$)
- Thickness: 4.9mil ($125 \pm 10 \mu\text{m}$)
- P bonding pad: 2.4mil ($60 \pm 10 \mu\text{m}$)
- N bonding pad: 2.4mil ($60 \pm 10 \mu\text{m}$)

(2) Metallization

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



Features:

- High radiant flux
- 100% probing test
- Passivation layer on top
- Long operation life

Applications:

- Backlighting

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

Parameter	Symbol		Condition	Min.	Typ.	Max.	Unit
Forward Voltage	Vf1		If = 10 μ A	2.0	-	-	V
	Vf2		If = 20mA	-	2.8	3.0	V
Reverse Current	Ir		Vr = 5V	-	-	2.0	μ A
Dominant Wavelength ⁽²⁾	λ_d		If = 20mA	445	-	465	nm
Spectra Half-width	$\Delta\lambda$		If = 20mA	-	25	-	nm
Radiant Flux ⁽³⁾⁽⁴⁾	Po	A37	If = 20mA	42	-	44	mW
		A38		44	-	46	

Note:

(1) ESD protection during chip handling is recommended.

(2) Basically, the wavelength span is 20nm; 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 $\pm 15\%$.

> Absolute Maximum Ratings:

Parameter	Symbol	Condition	Rating	Unit
Forward DC Current	I_f	$T_a = 25^\circ\text{C}$	≤ 60	mA
Reverse Voltage	V_r	$T_a = 25^\circ\text{C}$	≤ 5	V
Junction Temperature	T_j	-	≤ 125	$^\circ\text{C}$
Storage Temperature	T_{stg}	Chip	$-40 \sim +85$	$^\circ\text{C}$
		Chip-on-tape/storage	$5 \sim 35$	$^\circ\text{C}$
		Chip-on-tape/transportation	$-20 \sim +65$	$^\circ\text{C}$
Temperature during Packaging	-	-	$280(<10\text{sec})$	$^\circ\text{C}$

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

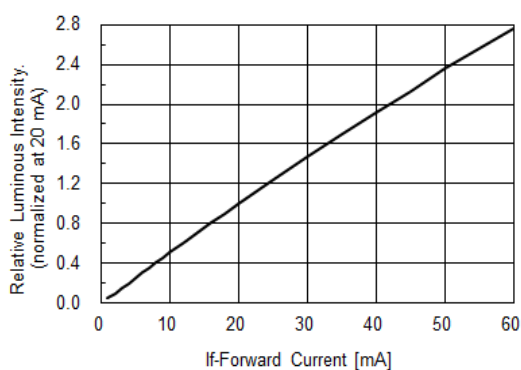


Fig.2 – Forward Current vs. Forward Voltage

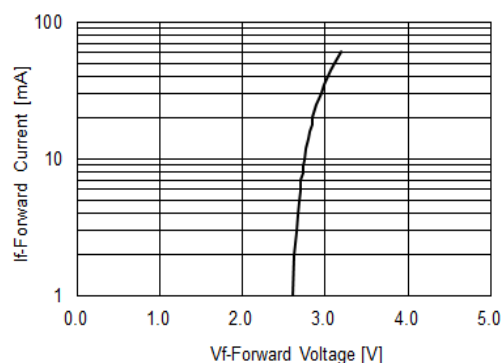


Fig.3 – Relative Intensity (@20mA) vs. Ambient Temperature

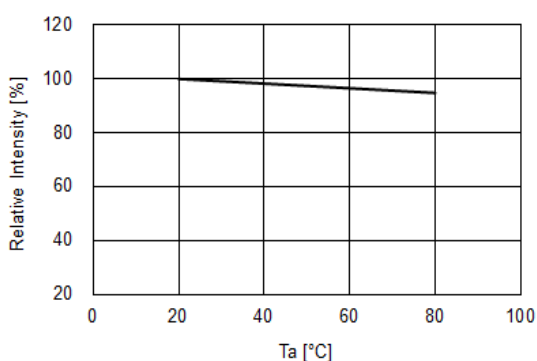


Fig.4 – Forward Voltage (@20mA) vs. Ambient Temperature

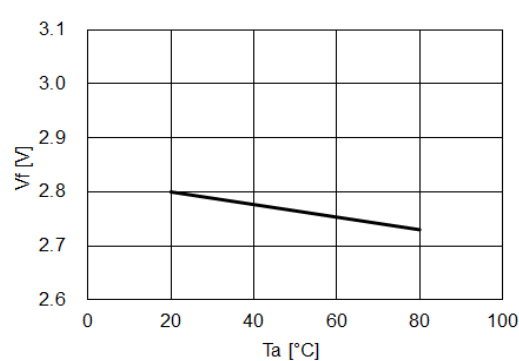


Fig.5 – Dominant Wavelength (@20mA) vs. Ambient Temperature

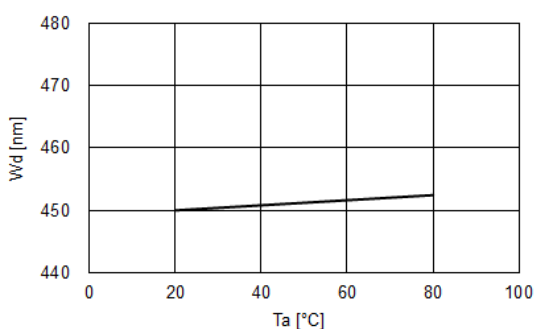


Fig.6 – Maximum Driving Forward DC Current vs. Ambient Temperature (De-rating based on T_j max. = 125°C)

