P85-26GTA

1. Color	Infrared
2. Material	AlGaAs / Ge
3. Electrode	P side (anode) : Au / N side (cathode) : Au
4. Electrode pattern	*(Figure 1)*
5. Chip size	240μm×240μm×190μm *(Figure 1)*
6. Electro-Optical characteristics (Ta=25℃)	*(Table 1)*
7. Absolute maximum rating	*(Table 2, Figure 2)*
8. Technical data	
8-1. Characteristic curves	*(Figure 3～9)*
8-2. Reliability	*(Figure 10～12)*

9. Features
- P side up
- High-speed response (Tr typ. : 9ns, Tf typ. : 6ns)
- Good reliability
- Good temperature characteristics
- High power

Figure 1. Electrode pattern and Chip size (Unit : μm)

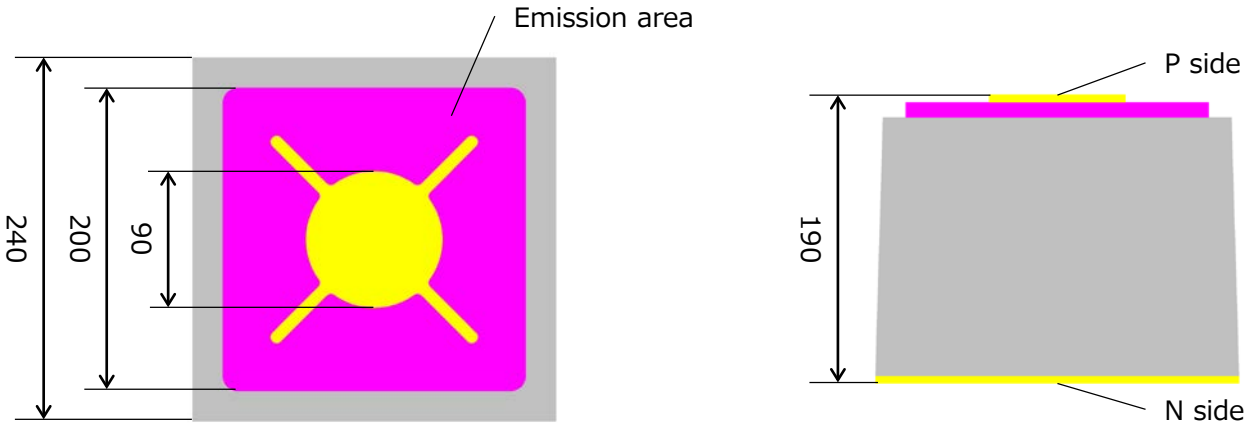


Table 1. Electro-Optical characteristics (Ta=25℃)

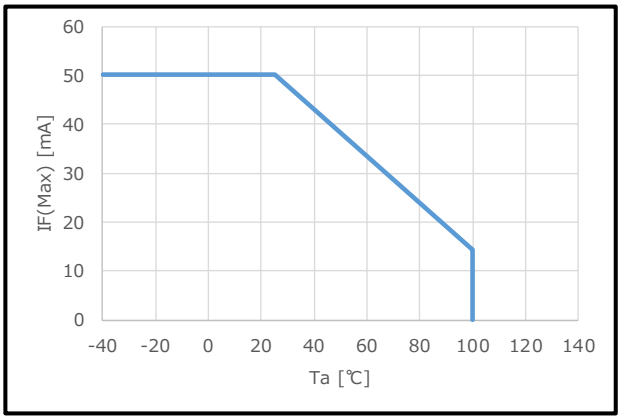
Parameters	Symbol	Condition	Min.	Typ.	Max.	Unit
Power*	Po	IF=20mA	6.0	8.0	10.0	mW
Forward Voltage	VF	IF=20mA	1.30	1.55	1.80	V
Peak Wavelength	λp	IF=20mA	820	850	880	nm
Reverse Current	IR	VR=5V	–	–	10	μA

* Power : Measurement at SHOWA DENKO PHOTONICS.

Table 2. Absolute maximum rating

Item	Symbol	Rating	Unit
Forward Current	IF	50	mA
Reverse Voltage	VR	5	V
Junction Temperature	Tj	130	℃

Figure 2. Ta-Absolute maximum rated current



SHOWA DENKO PHOTONICS' standard condition : LED chip mounted on TO-18 gold header, without resin coating.

* The absolute Maximum Rating means that there is a possibility to break down if exceeded momentarily, and does not guarantee to use on this condition considering reliability.

* You should establish the absolute Maximum Ratings of device after packaging under your responsibility, as those largely depend on the design of package and packaging condition.

Characteristic curves (TO-18 stem without resin)

Figure 3. IF-Po (Ta=25℃)

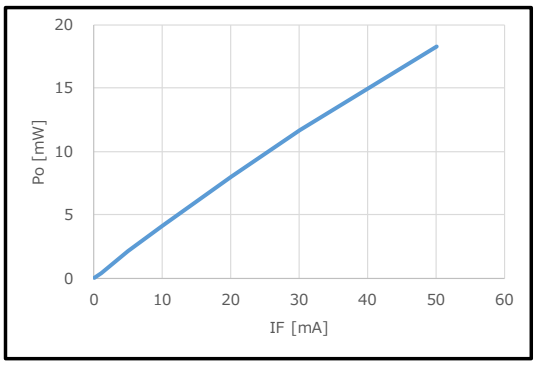


Figure 7. Ta-Relative Po

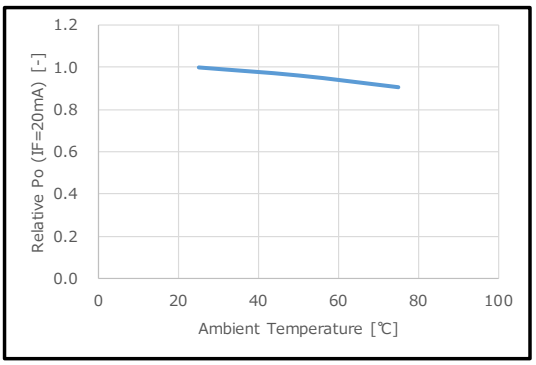


Figure 4. VF-IF (Ta=25℃)

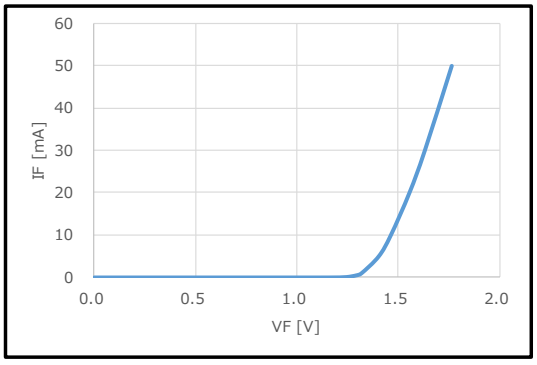


Figure 8. Ta-VF

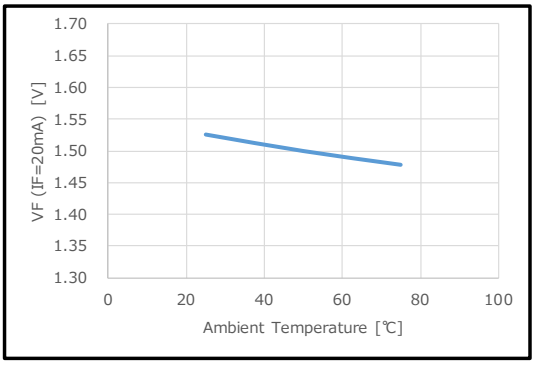


Figure 5. Emission spectrum (Ta=25℃)

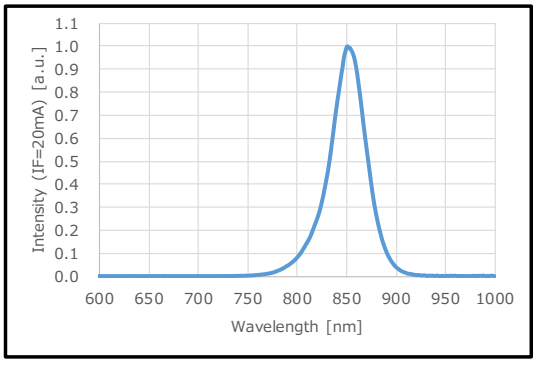


Figure 9. Ta-λp

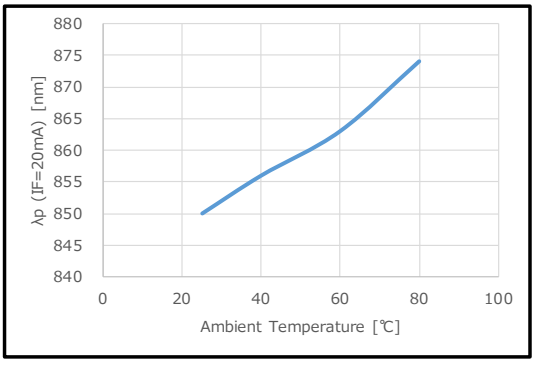
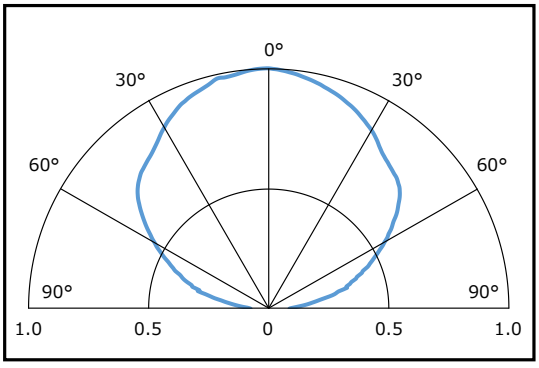


Figure 6. Emission distribution (Ta=25℃)



The data on this page are examples measured at SHOWA DENKO PHOTONICS, and they are not guaranteed.

Reliability (TO-18 stem without resin)

Figure 10. 25℃_50mA_1,000h test

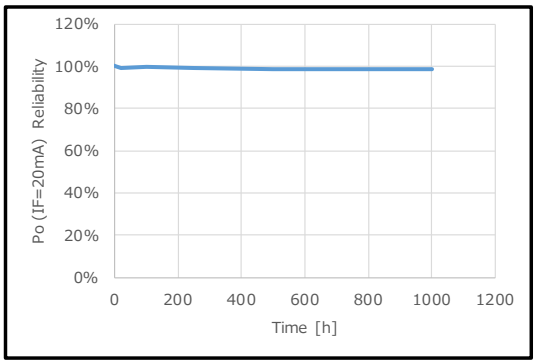


Figure 11. 125℃_20mA_1,000h test

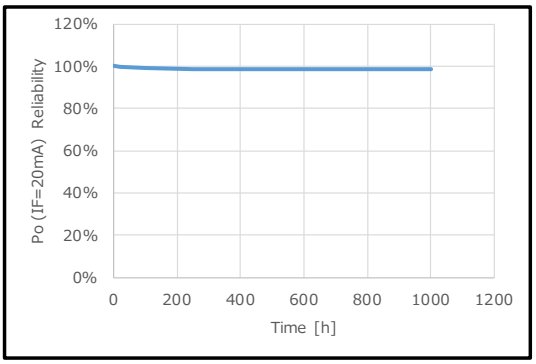
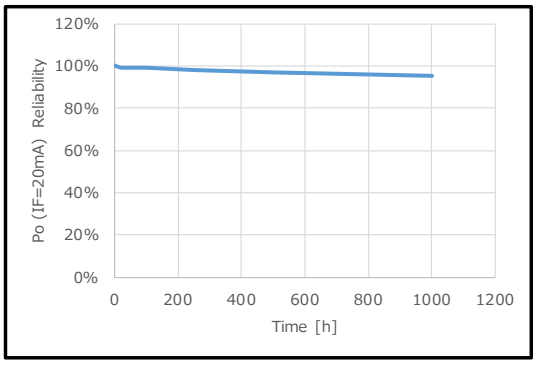


Figure 12. 85℃,85%_20mA_1,000h test



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