

MED7P5 is an AlInGaP red point source LED with a small emitting window. This die is ideally suited for use in applications where high and parallel output power is required such as optical switches and sensors.

### Features

- Small emitting window ( $\phi 150\mu\text{m}$ )
- High output power
- High reliability

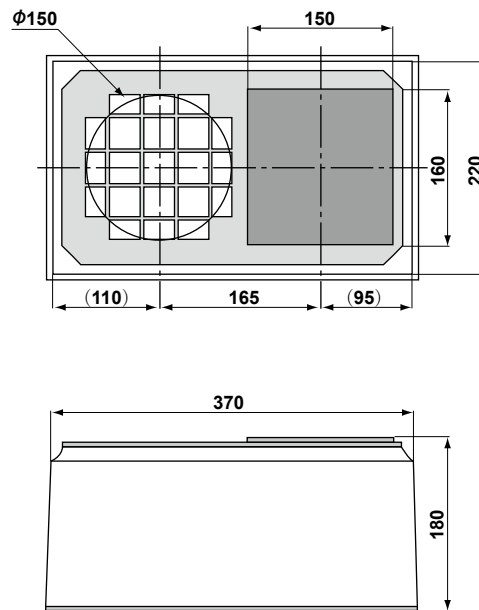
### Structure

- Material : AlInGaP
- Electrode : Au alloy (p,n)
- Emitting surface : p-side

### Applications

- Optical sensors
- Optical switches
- Optical encoders etc

### Dimensional outline drawing( $\mu\text{m}$ )



### Absolute Maximum Ratings\* ( $T_a=25^\circ\text{C}$ )

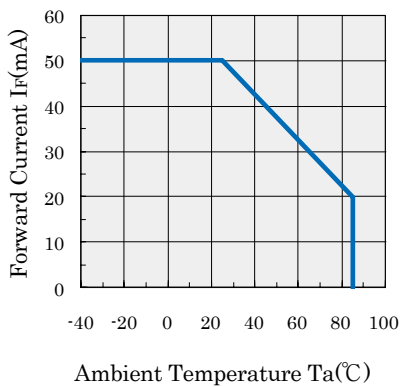
Parameter	Symbol	Rating	Unit
Forward Current	$I_F$	50	mA
Reverse Voltage	$V_R$	3	V
Operating Temperature	$T_{opr}$	-40 ~ 85	$^\circ\text{C}$
Storage Temperature	$T_{stg}$	-40 ~ 100	$^\circ\text{C}$

### Electro-Optical Characteristics\* ( $T_a=25^\circ\text{C}$ )

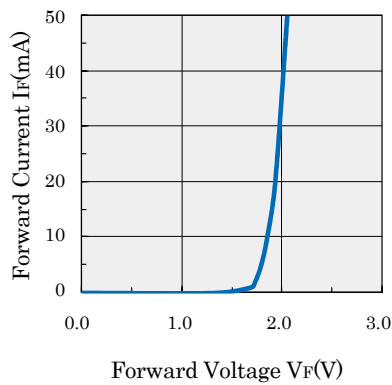
Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Voltage	$V_F$	$I_F=20\text{mA}$	-	2.0	2.4	V
Reverse Current	$I_R$	$V_R=3\text{V}$	-	-	10	$\mu\text{A}$
Output Power	$P_o$	$I_F=20\text{mA}$	0.6	0.9	-	mW
Central Wavelength	$\lambda_c$	$I_F=20\text{mA}$	630	650	670	nm

\*As mounted on T018 header and hermetically sealed

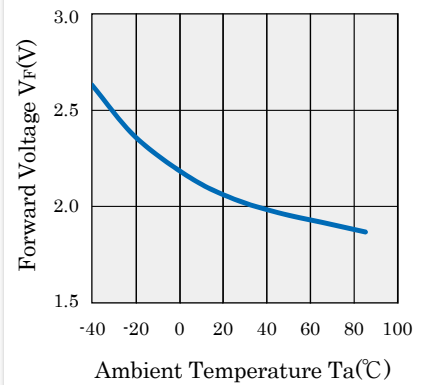
**Fig1.  $I_F / T_a$**



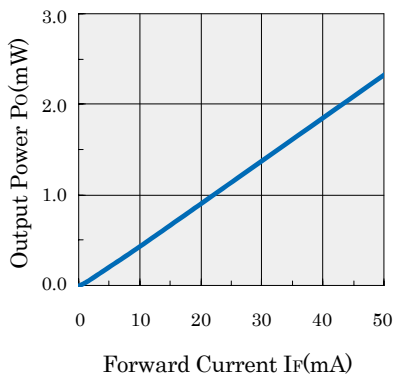
**Fig2.  $I_F / V_F$**



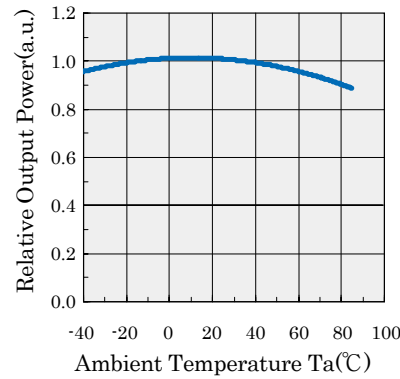
**Fig3.  $V_F / T_a$**



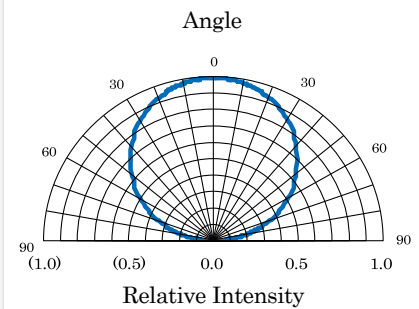
**Fig4.  $P_o / I_F$**



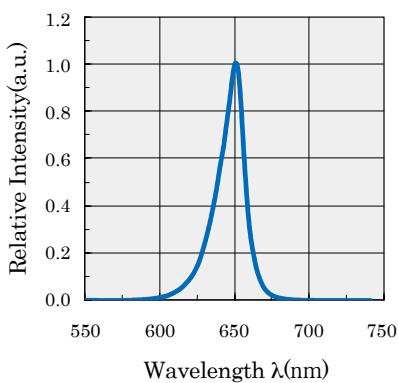
**Fig5. Relative  $P_o / T_a$**



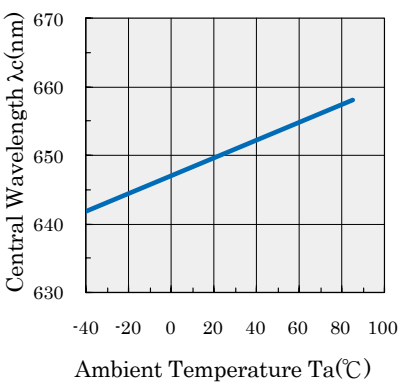
**Fig6. Spatial Distribution**



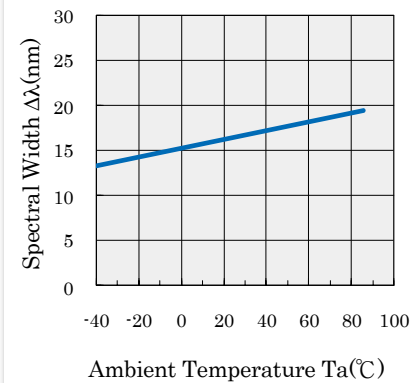
**Fig7. Spectral Characteristics**



**Fig8. Central Wavelength  $\lambda_c / T_a$**



**Fig9. Spectral Width  $\Delta\lambda / T_a$**



This catalogue was compiled in March 2023. All items listed in the catalogue are subject to change without any prior notice.

Products listed in this catalogue are designed and manufactured for use in standard applications (eg: household appliances, OA/AV, telecommunications, measurement instruments). The customers should take security measures, when used the products in critical reliability and security applications (eg: space and aviation, critical-safety transport applications, nuclear power control, medical, life-supporting units and equipment). We assume no liability for damages incurred by use of the products without taking measures described above.

