

MED7P2 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 ($\phi 160\mu\text{m}$)
- High output power
- High reliability

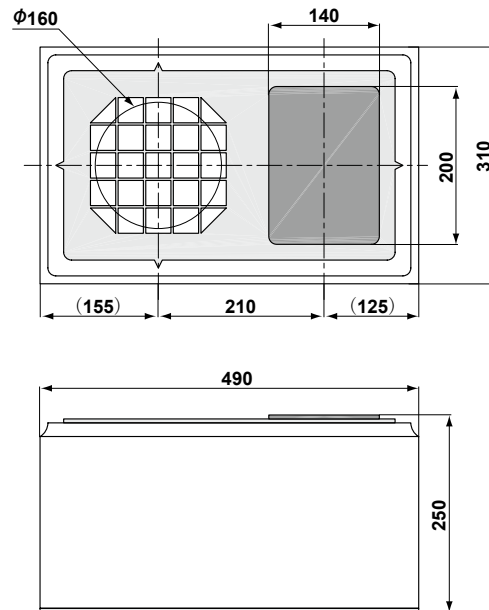
Structure

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

Applications

- Optical sensors
- Optical switches
- Optical encoders etc

Dimensional outline drawing (μm)



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	μA
Output Power	P_o	$I_F=20\text{mA}$	0.6	1.0	-	mW
Central Wavelength	λ_c	$I_F=20\text{mA}$	630	650	670	nm

*As mounted on T018 header and hermetically sealed

Fig1. I_F / T_a

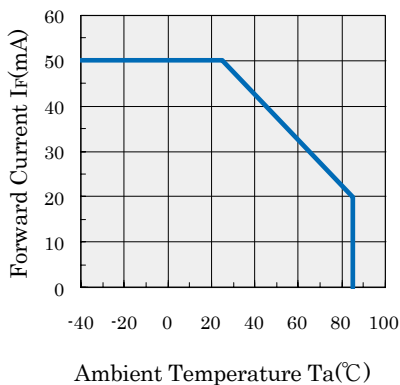


Fig2. I_F / V_F

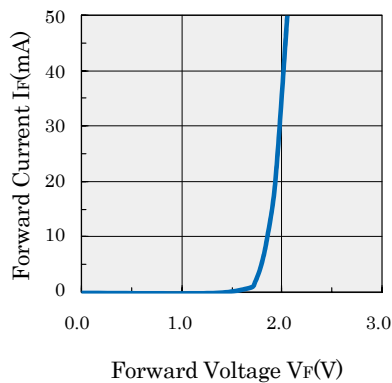


Fig3. V_F / T_a

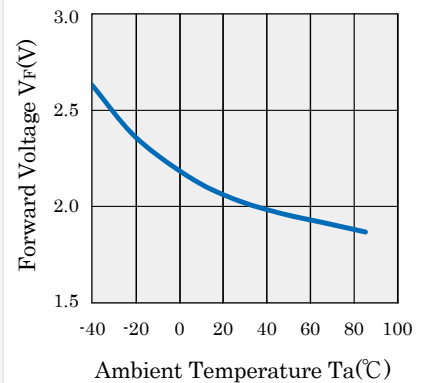


Fig4. P_o / I_F

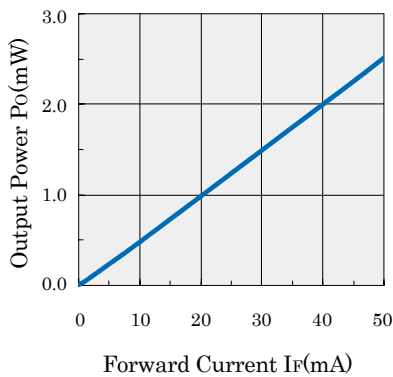


Fig5. Relative P_o / T_a

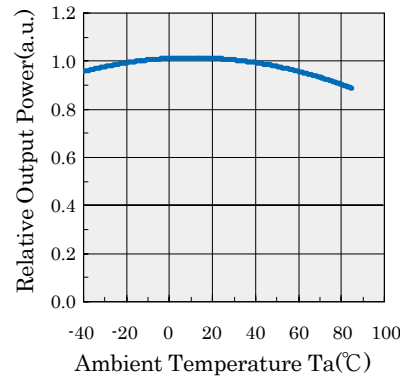


Fig6. Spatial Distribution

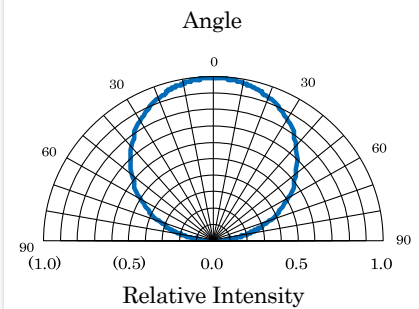


Fig7. Spectral Characteristics

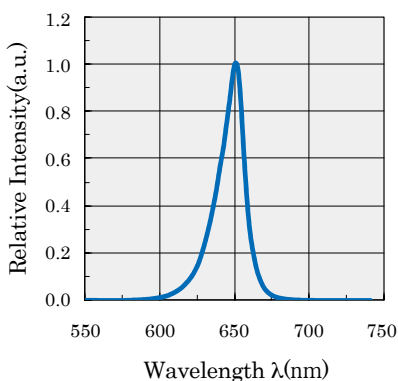


Fig8. Central Wavelength λ_c / T_a

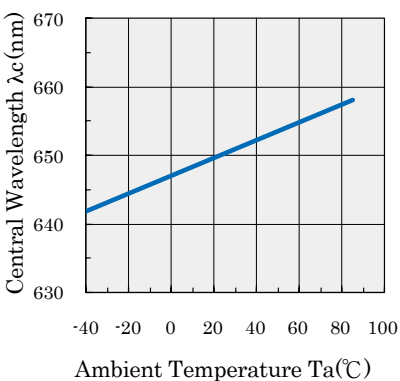
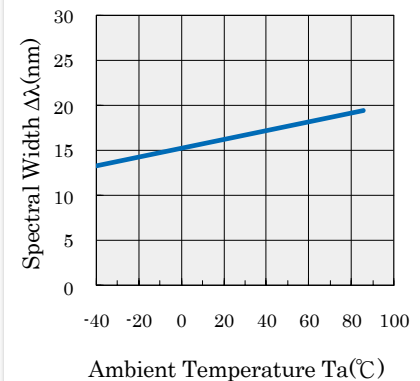


Fig9. Spectral Width $\Delta\lambda / T_a$



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