StarLED

Red Point Source LED Die

MED7P7

MED7P7 is an AlInGaP red point source LED die having a small emitting aperture. It is designed for optical communications over Plastic Optical Fiber (POF) and is also well suited for applications where small visible light is required, such as sensing and positioning.

Features

- Red light emissions (λc 650nm)
- Small emitting aperture (ϕ80μm)
- High speed (fc : 45MHz)
- High reliability

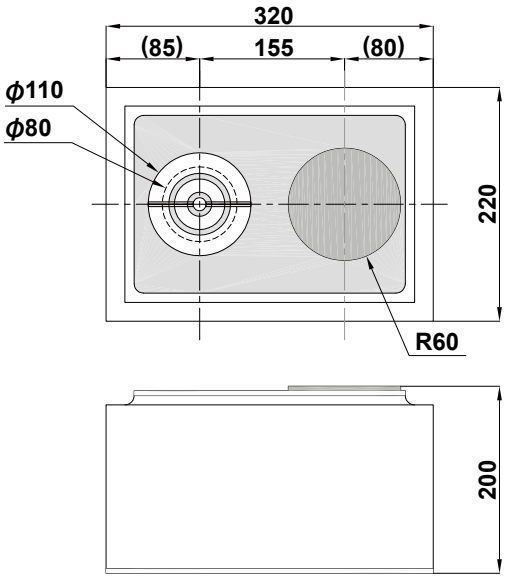
Structure

- Material : AlInGaP/GaAs sub.
- Electrode: Au alloy (p,n)
- Emitting surface: p-side

Applications

- POF communications
- Optical sensors etc.

Dimensional outline drawing(μm)



Absolute Maximum Ratings* (Ta=25°C)

Parameter	Symbol	Rating	Unit
Forward Current	I_F	25	mA
Reverse Voltage	V_R	3	V
Operation Temperature	T_{opr}	-40~85	℃
Storage Temperature	T_{stg}	-40~100	℃

Electro-Optical Characteristics* (Ta=25℃)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Voltage	V_F	I_F=20mA	-	2.4	3.0	V
Reverse Current	I_R	V_R=3V	-	-	10	μA
Output Power	P_o	I_F=20mA	0.4	0.9	-	mW
Central Wavelength	λc	I_F=20mA	630	650	670	nm
Cutoff Frequency	fc	I_F=20mA+10mAp-p	-	45	-	MHz

*As mounted on TO18 header and hermetically sealed

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MED7P7

Fig1. IF / Ta

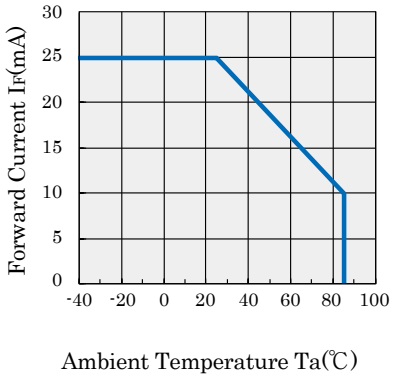


Fig2. IF / VF

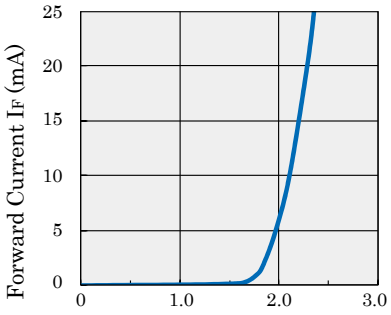


Fig3. VF / Ta

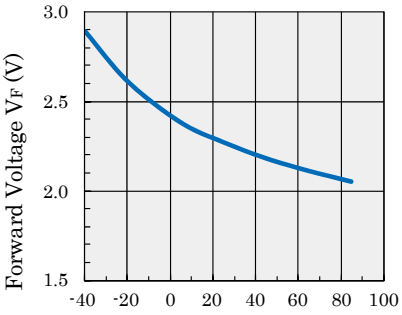


Fig4. Po / IF

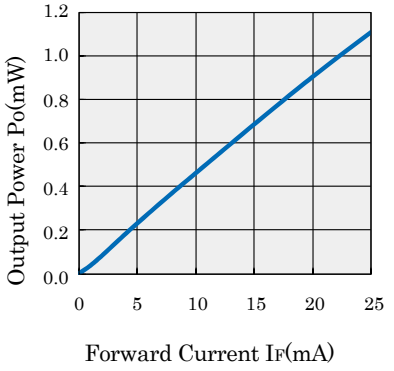


Fig5. Relative Po / Ta

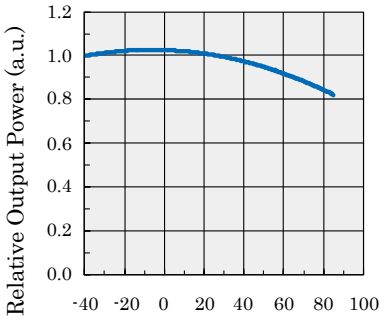


Fig6. Frequency Response

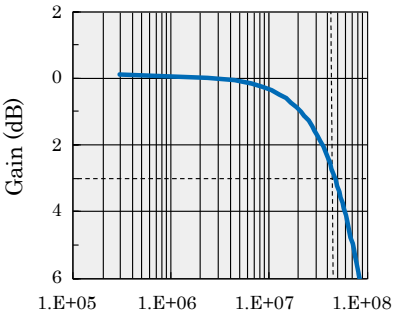


Fig7. Spectral Characteristics

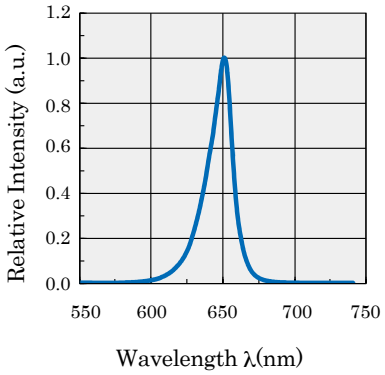


Fig8. Central Wavelength / Ta

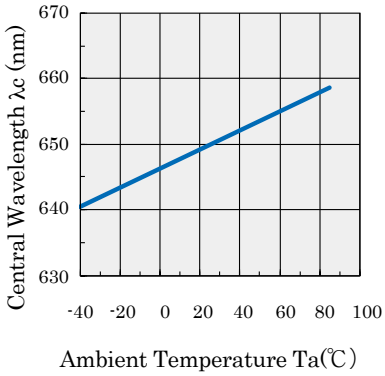
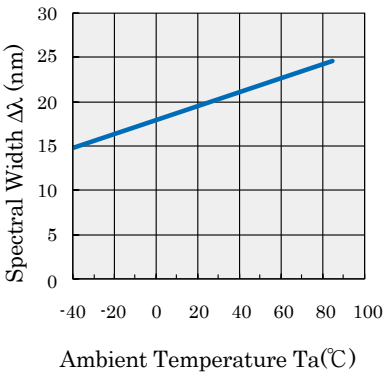


Fig9. Spectral Width / Ta



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.

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