

# Red Point Source LED Chip MED7P3

MED7P3 is a high-speed red point source LED chip. MED7P3 is efficient in POF applications due to its high speed, high output power and low absorption rate in POF.

## • Features

- Small-size emitting aperture ( $\phi 160\mu\text{m}$ )
- High speed (30MHz)
- High output power

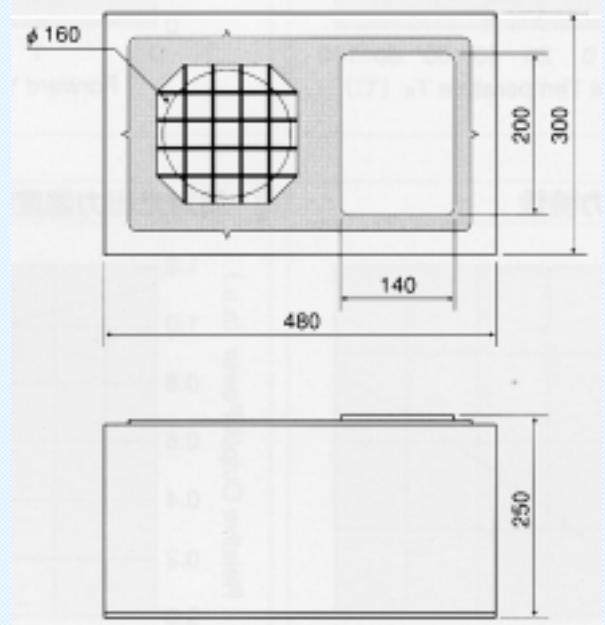
## • Structure

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

## • Applications

- POF communications
- Optical sensors
- Optical switches etc

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



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

Parameter	Symbol	Rating	Unit
Power Dissipation	$P_D$	100	mW
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	$V_F$	$I_F=20\text{mA}$	-	2.2	2.5	V
Reverse Current	$I_R$	$V_R=3\text{V}$	-	-	10	$\mu\text{A}$
Output Power	$P_o$	$I_F=20\text{mA}$	0.4	0.6	-	mW
Peak Wavelength	$\lambda_p$	$I_F=20\text{mA}$	630	650	670	nm
Cutoff Frequency	$f_c$	$I_F=20\text{mA}+10\text{mA}_{p-p}$	25	30	-	MHz

\*as mounted on TO18 header and hermetically sealed

# Star LED



Daido Steel Co., Ltd

MED7P3 data sheet

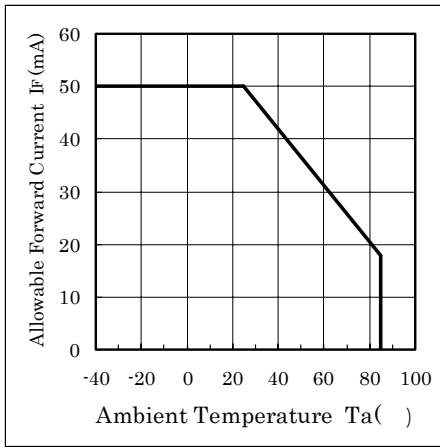


Fig1.  $I_F / T_a$

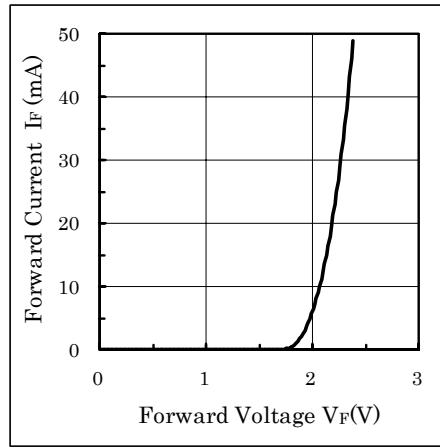


Fig2.  $I_F / V_F$

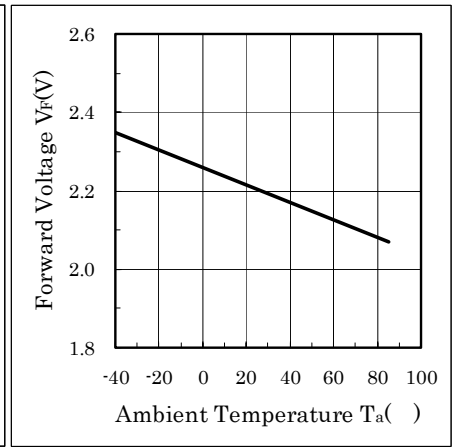


Fig3.  $V_F / T_a$

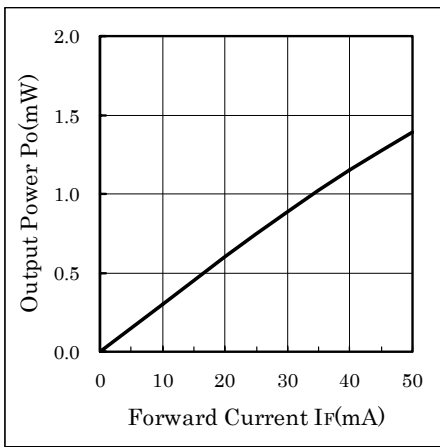


Fig4.  $P_o / I_F$

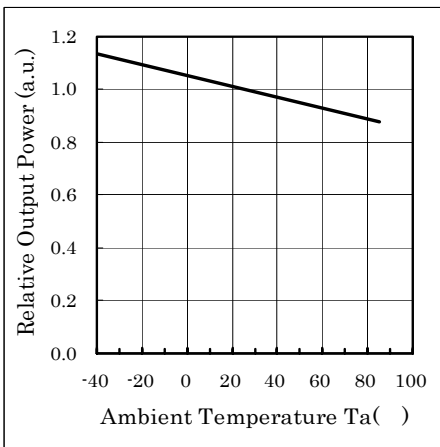


Fig5. Relative  $P_o / T_a$

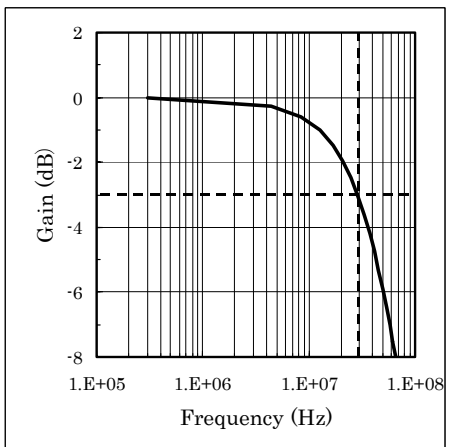


Fig6. Frequency Response

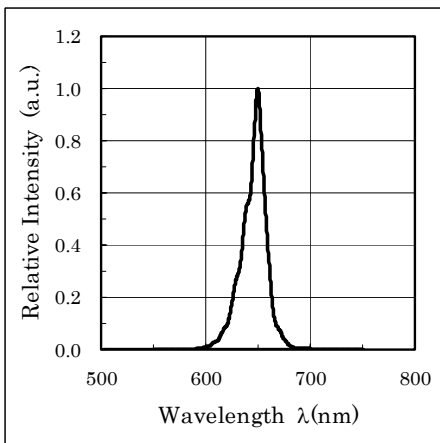


Fig7. Spectral Characteristics

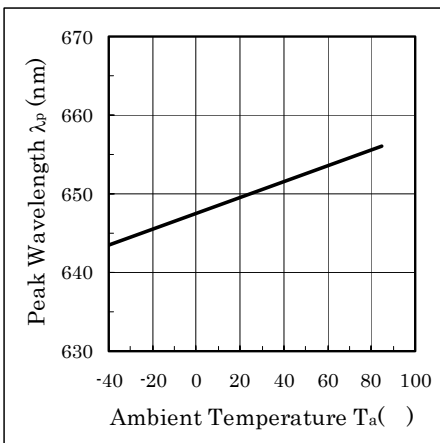


Fig8. Peak Wavelength /  $T_a$

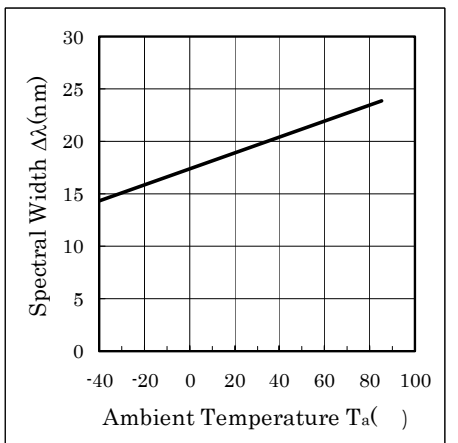


Fig9. Spectral Width /  $T_a$

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Products listed in this catalogue are manufactured for use in standard applications (eg: household appliances, OA/AV, telecommunications, measurement instruments). Please do not use 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).



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