

MED8P56A is a low failure infrared point source LED chip. It is well suited for optical switches, positioning and sensing applications due to its small-size emitting aperture.

### Features

- Small-size emitting aperture ( $\phi 150\mu\text{m}$ )
- Small side emission
- High output power
- High reliability

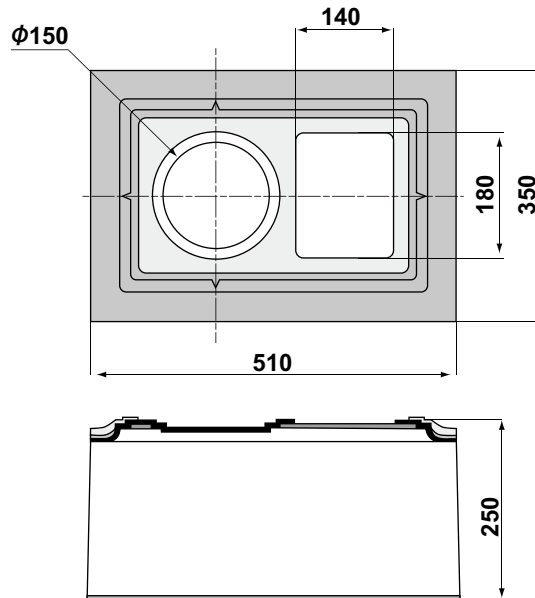
### Structure

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

### Applications

- Optical encoders
- Optical switches
- Optical sensors etc

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



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

Parameter	Symbol	Rating	Unit
Power Dissipation	$P_D$	200	mW
Forward Current	$I_F$	100	mA
Reverse Voltage	$V_R$	3	V
Operating Temperature	$T_{opr}$	-20~80	$^\circ\text{C}$
Storage Temperature	$T_{stg}$	-30~100	$^\circ\text{C}$

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

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Voltage	$V_F$	$I_F=50\text{mA}$	-	1.7	2.2	V
Reverse Current	$I_R$	$V_R=3\text{V}$	-	-	10	$\mu\text{A}$
Output Power	$P_o$	$I_F=50\text{mA}$	1.5	2.4	-	mW
Central Emission Wavelength	$\lambda_c$	$I_F=50\text{mA}$	-	855	-	nm
Side emission ratio	$R_s$	$I_F=50\text{mA}$	-	-	1	%

\*As mounted on T018 header and hermetically sealed

Fig1.  $I_F / T_a$

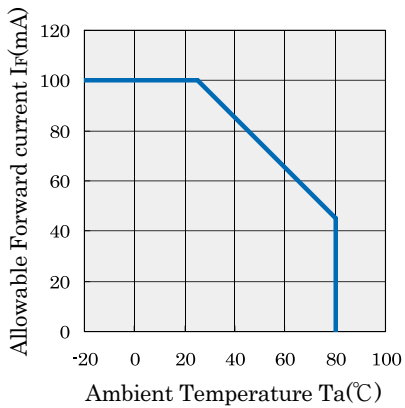


Fig2.  $I_F / V_F$

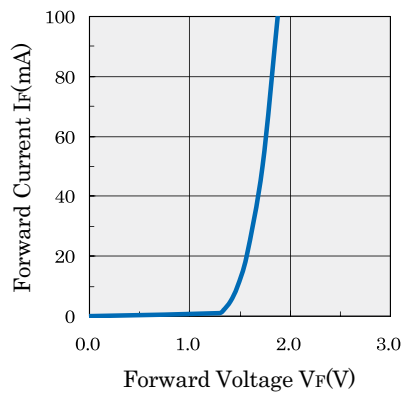


Fig3.  $V_F / T_a$

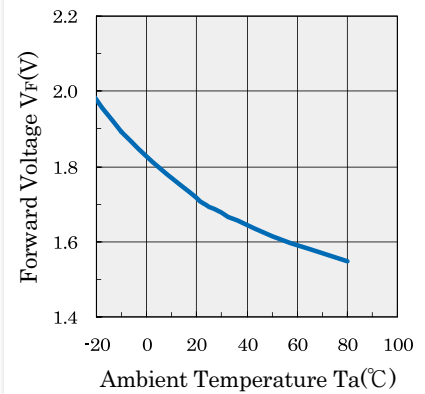


Fig4.  $P_O / I_F$

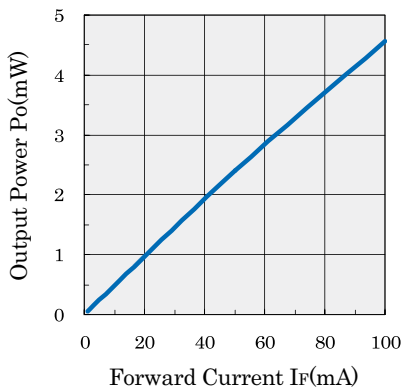


Fig5. Relative  $P_O / T_a$

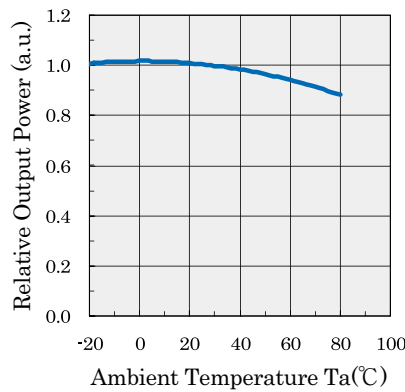


Fig6. Spatial Distribution

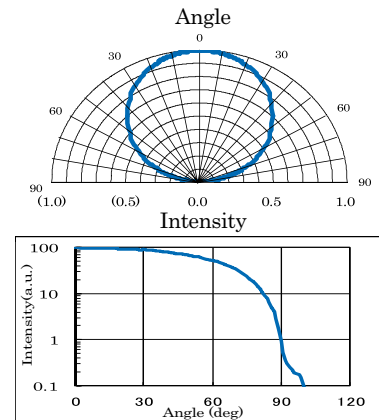


Fig7. Spectral Characteristics

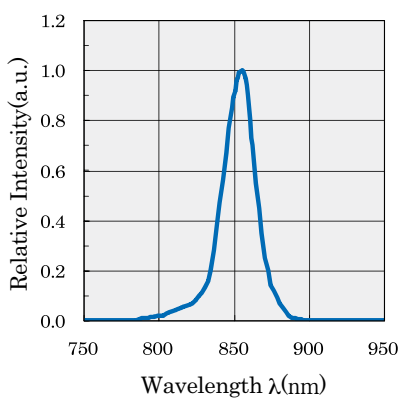


Fig8. Central Wavelength  $\lambda_c / T_a$

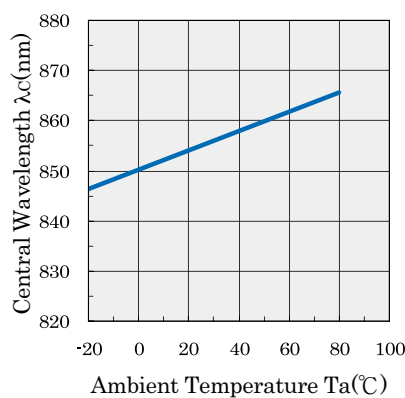
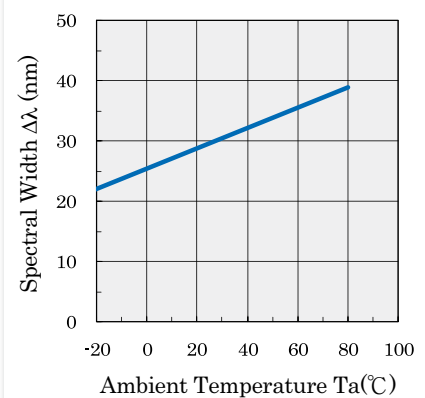


Fig9. Spectral Width  $\Delta\lambda / T_a$



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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).