

Infrared Point Source LED Chip MED8P51

MED8P51 is a low failure rate infrared point source LED chip optimized for optical switches, encoders and other light source applications due to its track-shaped emitting aperture.

• Features

- Track-shaped emitting aperture ($\phi 160 \times 40\mu\text{m}$)
- 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

• Absolute Maximum Ratings*(Ta=25°C)

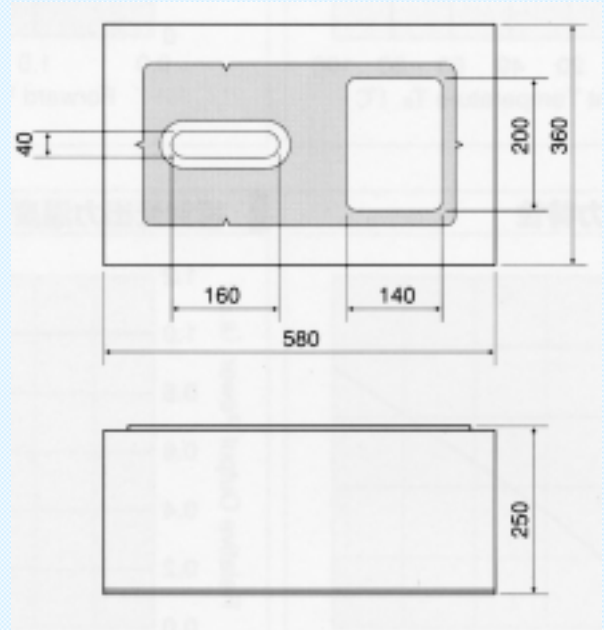
Parameter	Symbol	Rating	Unit
Power Dissipation	P_D	150	mW
Forward Current	I_F	80	mA
Reverse Voltage	V_R	3	V
Operating Temperature	T_{opr}	-20 ~ 80	°C
Storage Temperature	T_{stg}	-30 ~ 100	°C

• Electro-Optical Characteristics*(Ta=25°C)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Voltage	V_F	$I_F=50\text{mA}$	-	2.0	3.0	V
Reverse Current	I_R	$V_R=3\text{V}$	-	-	10	μA
Output Power	P_o	$I_F=50\text{mA}$	1.2	2.0	-	MW
Peak Wavelength	λ_p	$I_F=50\text{mA}$	-	850	-	nm

* as mounted on TO18 header and hermetically sealed

• Dimensional outline drawing (μm)



Star LED



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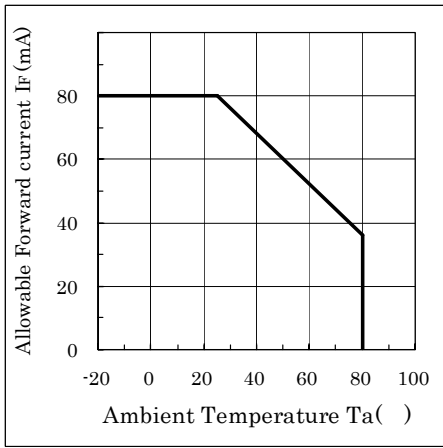


Fig1. I_F / T_a

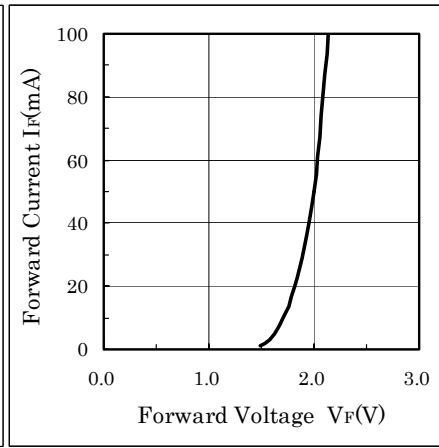


Fig2. I_F / V_F

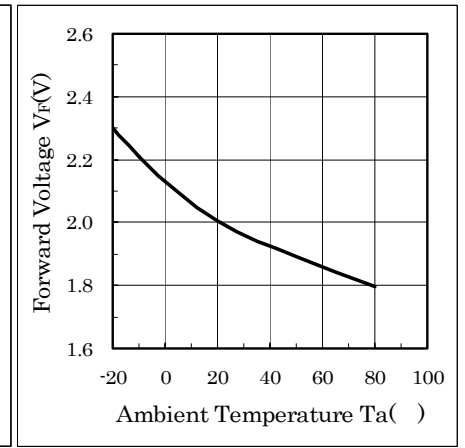


Fig3. V_F / T_a

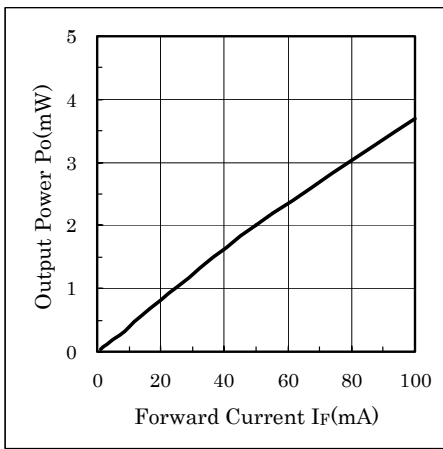


Fig4. P_o / I_F

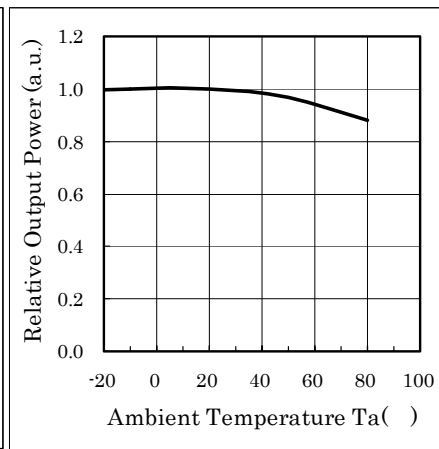


Fig5. Relative P_o / T_a

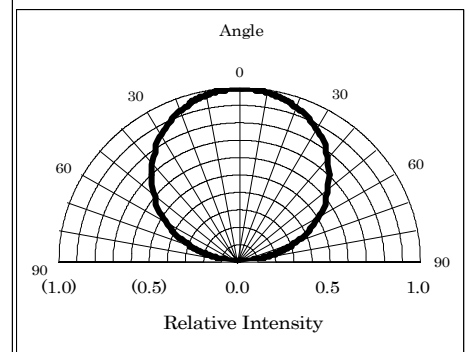


Fig6. Spatial Distribution

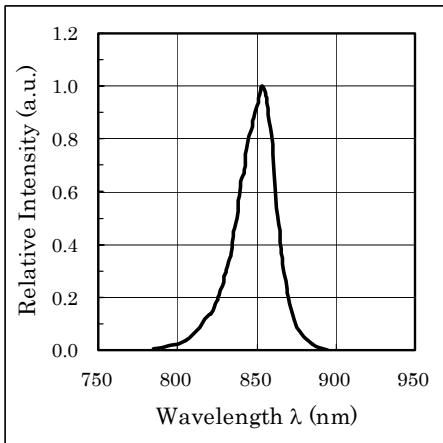


Fig7. Spectral Characteristics

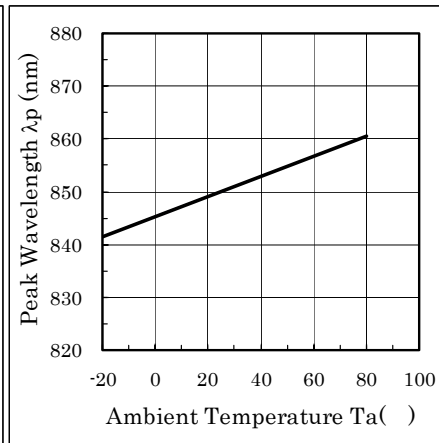


Fig8. Peak Wavelength / T_a

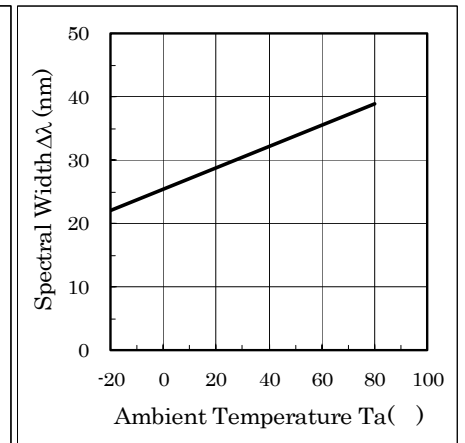


Fig9. Spectral Width / T_a

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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).



DAIDO STEEL Co., Ltd.

New Business Development Center

6-35, Konan 1-chome, Minato-ku, Tokyo 108-8478, Japan

TEL:+81 3 5495 1255 FAX:+81 3 5495 6734 URL:<http://www.daido.co.jp>