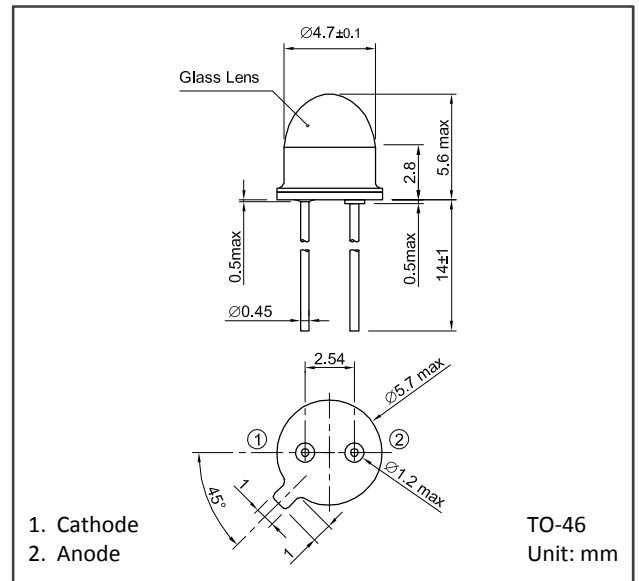


Features

- Parallel beam
- High output power
- Uniform light intensity distribution

Applications

- Rotary encoders
- Linear encoders
- Optical sensors

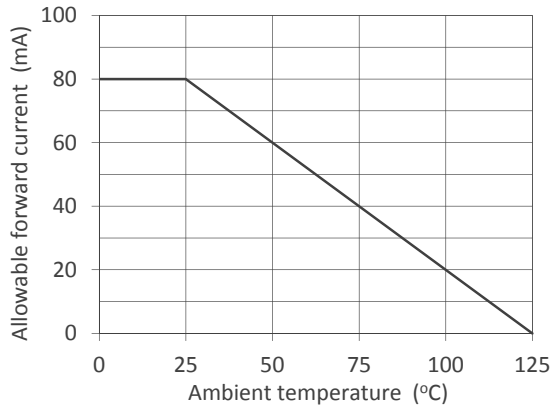
**Absolute Maximum Ratings**

Parameter	Symbol	Value	Unit	Note
Forward current	I_F	80	mA	$T_a=25^\circ\text{C}$
Reverse voltage	V_R	5	V	
Power dissipation	P_D	140	mW	$T_a=25^\circ\text{C}$
Operating temperature	T_{opr}	-40 to +125	$^\circ\text{C}$	Avoid dew condensation
Storage temperature	T_{stg}	-40 to +125	$^\circ\text{C}$	Avoid dew condensation

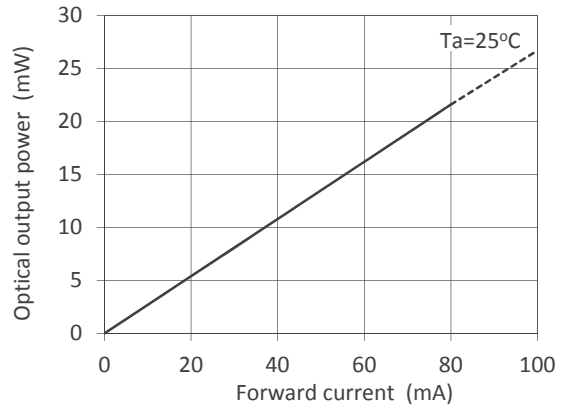
Electrical and Optical Characteristics ($T_a=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Forward voltage	V_F	-	1.6	2.0	V	$I_F=50\text{mA}$
Reverse current	I_R	-	-	10	μA	$V_R=5\text{V}$
Optical output power	P_O	-	12	-	mW	$I_F=50\text{mA}$
Peak emission wavelength	λ_p	-	870	-	nm	$I_F=50\text{mA}$
Spectral bandwidth at 50%	$\Delta\lambda$	-	50	-	nm	$I_F=50\text{mA}$

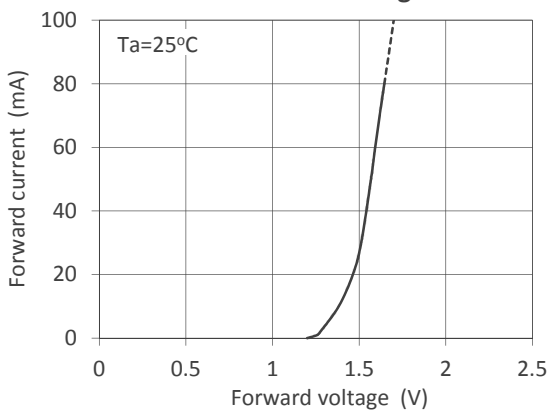
Allowable Forward Current-Ambient Temperature



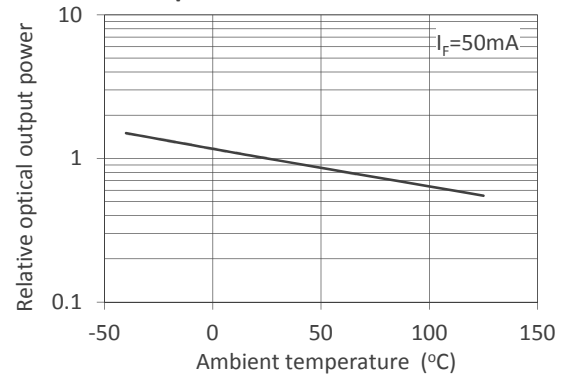
Optical Output Power - Forward Current



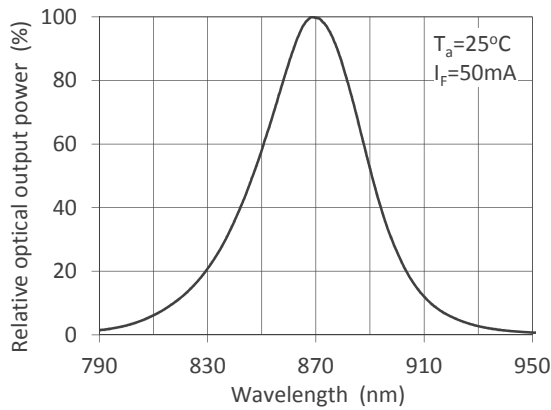
Forward Current - Forward Voltage



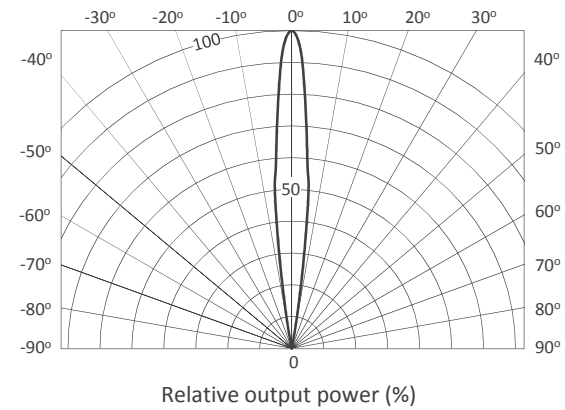
Relative Optical Output Power - Ambient Temperature



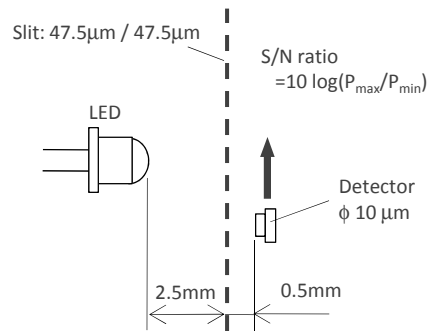
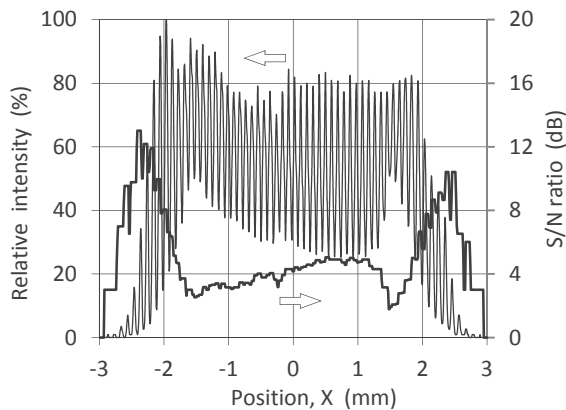
Spectral Distribution



Directivity



Beam Parallelism



Measurement setup of beam parallelism

- Specifications, characteristics, data, materials, structures specified in this datasheet are subject to change without notice. Please refer to the latest specification before use of the products.
- Products listed in this datasheet comply with the RoHS Directive (EU2002/95/EC).

Opto-technologies for the Future



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