

# GaAlAs Parallel Beam Infrared LED

# KED308HQ

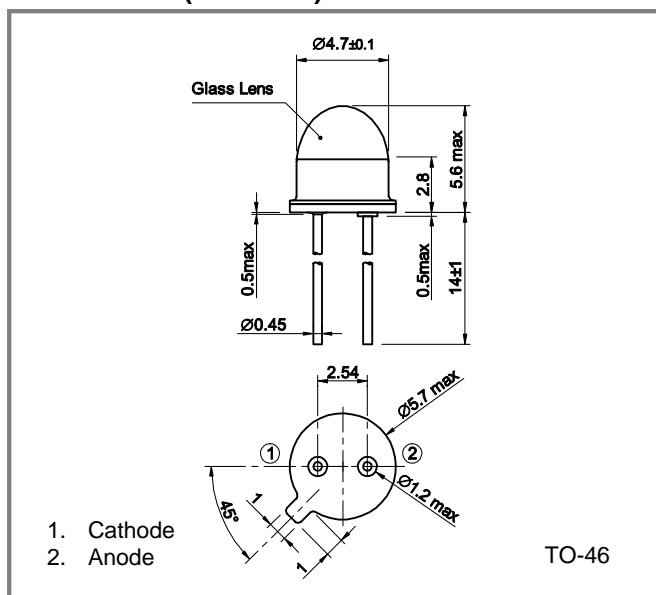
## Features

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

## Applications

- Optical encoders
- Linear encoders
- Reflective sensors

## Dimensions (unit: mm)



## 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	
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)

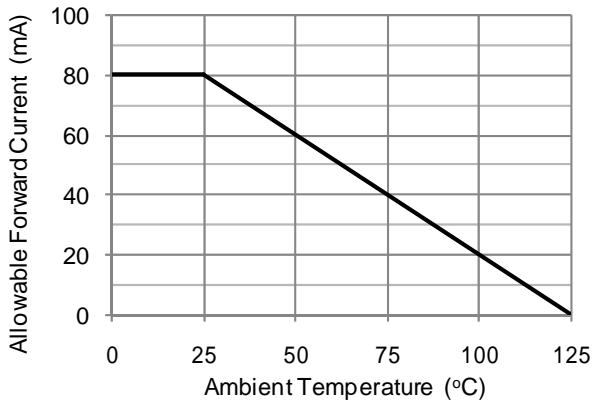
Parameter	Symbol	Min.	Typ.	Max	Unit	Test Conditions
Forward voltage	$V_F$	-	1.6	2.0	V	$I_F=50\text{mA}$
Reverse current	$I_R$	-	-	10	$\mu\text{A}$	$V_R=5\text{V}$
Optical output power	$P_o$	-	12	-	mW	$I_F=50\text{mA}$
Peak emission wavelength	$\lambda_P$	-	870	-	nm	$I_F=50\text{mA}$
Spectral bandwidth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

Specifications are subject to change without notice.

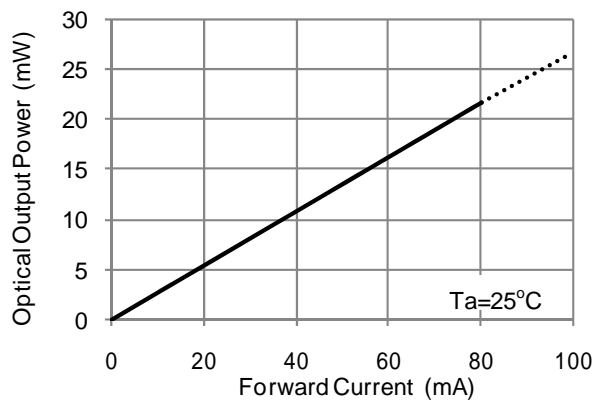
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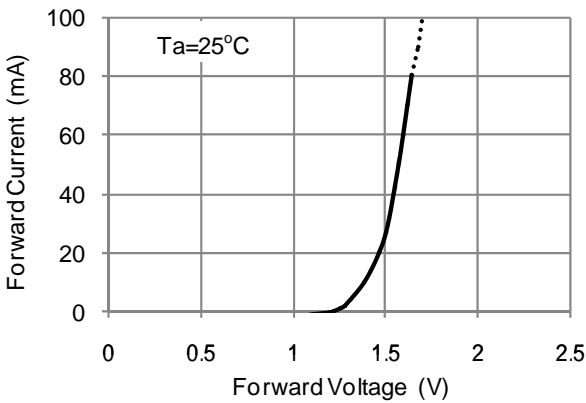
**Allowable Forward Current - Ambient Temperature**



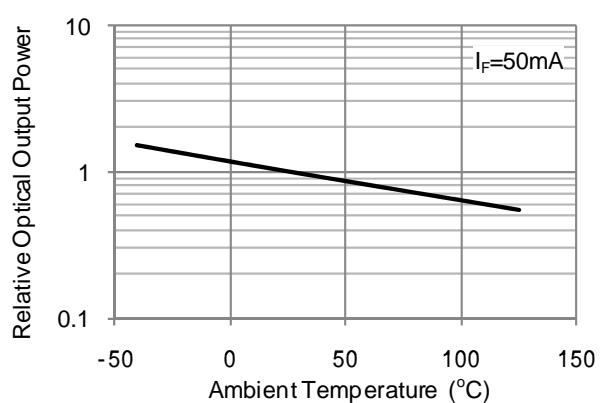
**Optical Output Power - Forward Current**



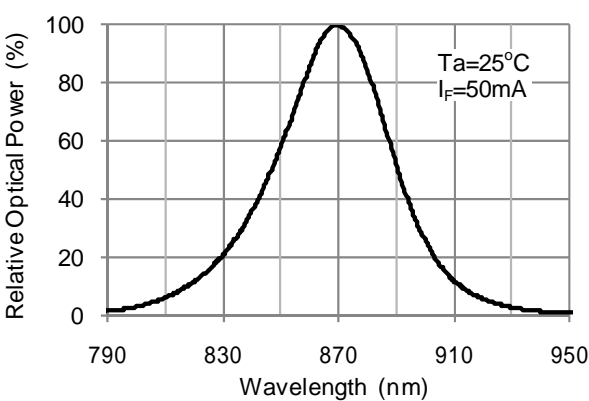
**Forward Current - Forward Voltage**



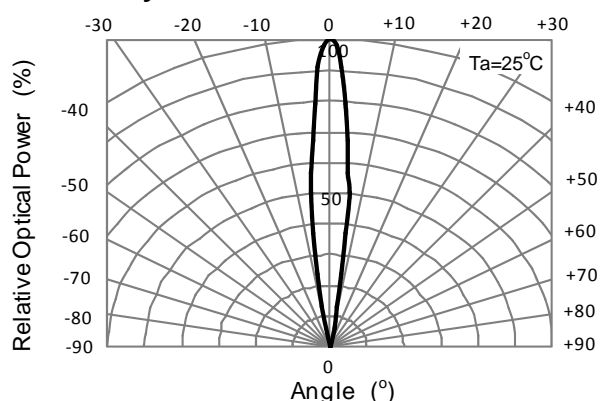
**Relative Optical Output Power - Ambient Temperature**



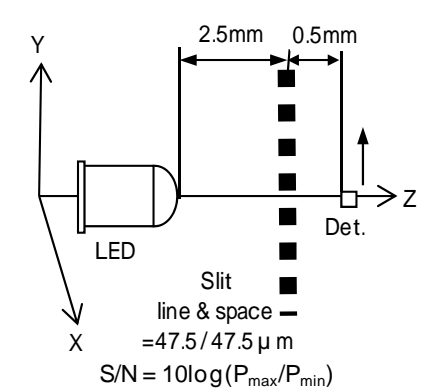
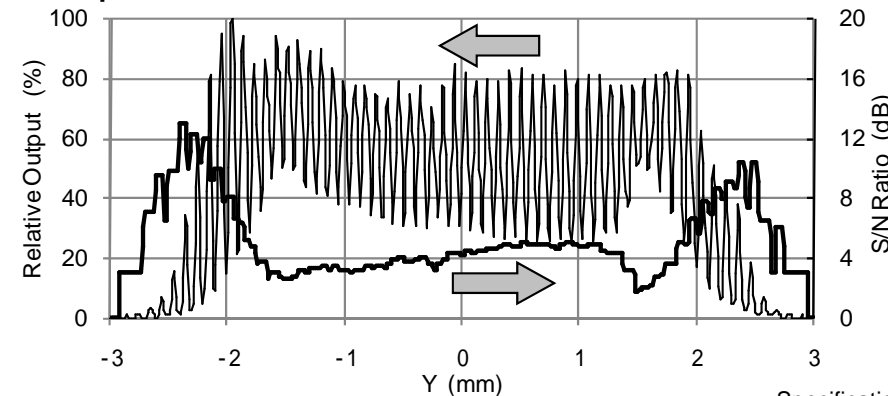
**Spectral Distribution**



**Directivity**



**Beam parallelism**



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**Contacts:**

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