

GaAlAs High Power Infrared LED

KED109Z-N

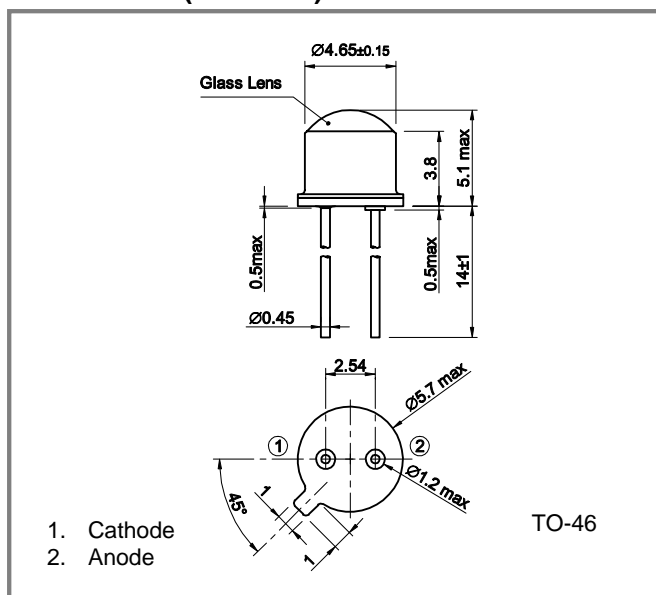
Features

- Parallel beam
- High output power
- Highly reliable hermetic seal
- Uniform light intensity distribution

Applications

- Optical switches
- Optical encoders
- Reflective sensors

Dimensions (unit: mm)



Absolute Maximum Ratings

Parameter	Symbol	Value	Unit	Note
Forward current	I_F	80	mA	$T_a=25^{\circ}\text{C}$
Peak forward current	I_{FP}	0.8	A	Pulse width=100 μs , Duty ratio=0.1%
Reverse voltage	V_R	6	V	
Power dissipation	P_D	140	mW	
Operating temperature	T_{opr}	-40 to +125	$^{\circ}\text{C}$	Avoid dew condensation
Storage temperature	T_{stg}	-55 to +125	$^{\circ}\text{C}$	Avoid dew condensation

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

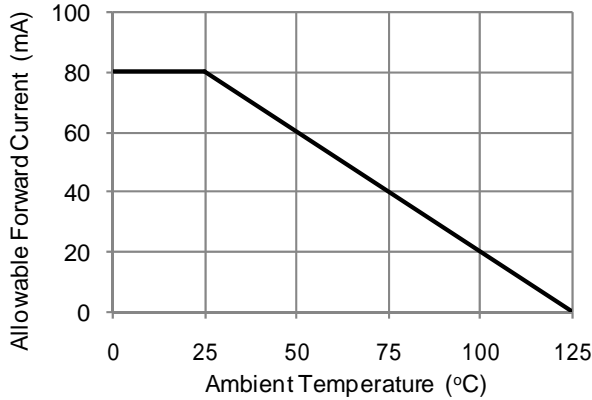
Parameter	Symbol	Min.	Typ.	Max	Unit	Test Conditions
Forward Voltage	V_F	-	1.3	1.5	V	$I_F=20\text{mA}$
Reverse Current	I_R	-	-	10	μA	$V_R=6\text{V}$
Optical Output Power	P_o	-	3.0	-	mW	$I_F=20\text{mA}$
Peak emission wavelength	λ_P	-	890	-	nm	$I_F=20\text{mA}$
Spectral bandwidth at 50%	$\Delta\lambda$	-	50	-	nm	$I_F=20\text{mA}$

Specifications are subject to change without notice.

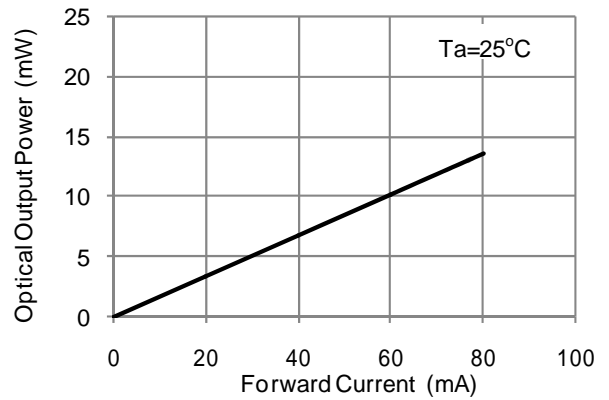
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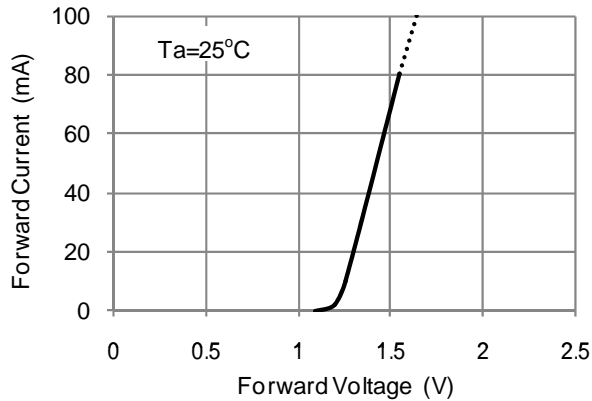
Allowable Forward Current - Ambient Temperature



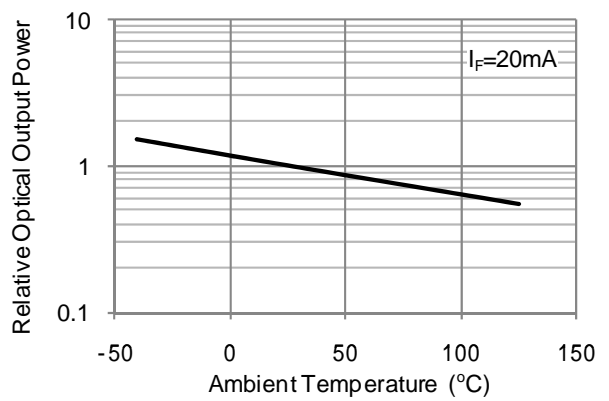
Optical Output Power - Forward Current



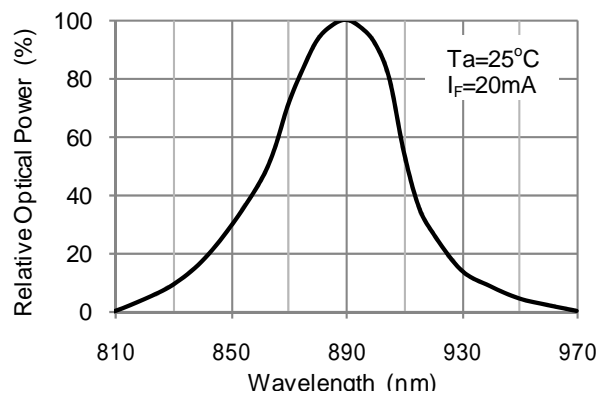
Forward Current - Forward Voltage



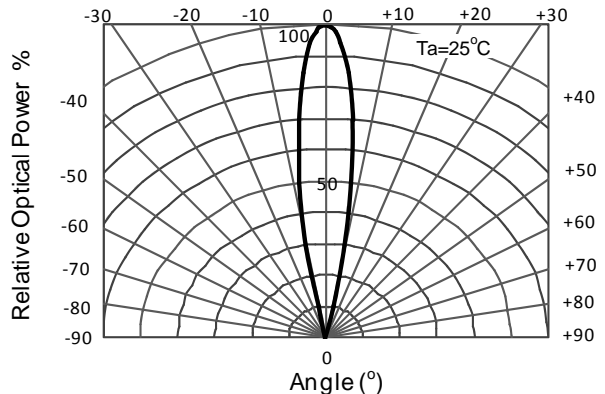
Relative Optical Output Power - Ambient Temperature



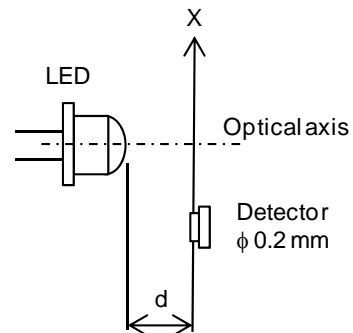
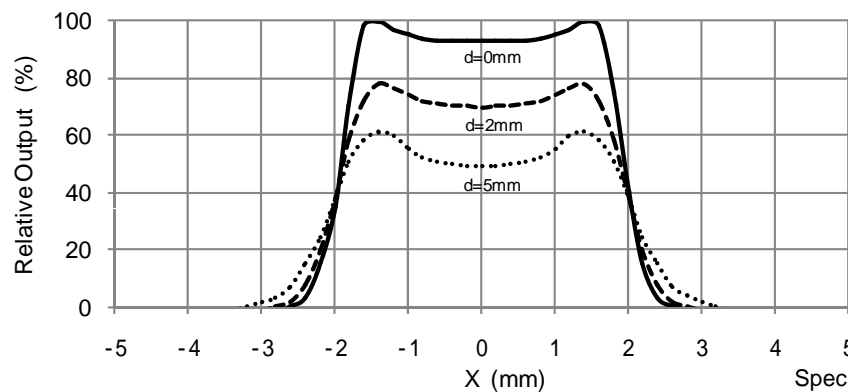
Spectral Distribution



Directivity



Light Intensity Distribution



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Contacts:

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