

Point-source Infrared LED

KED050CXH

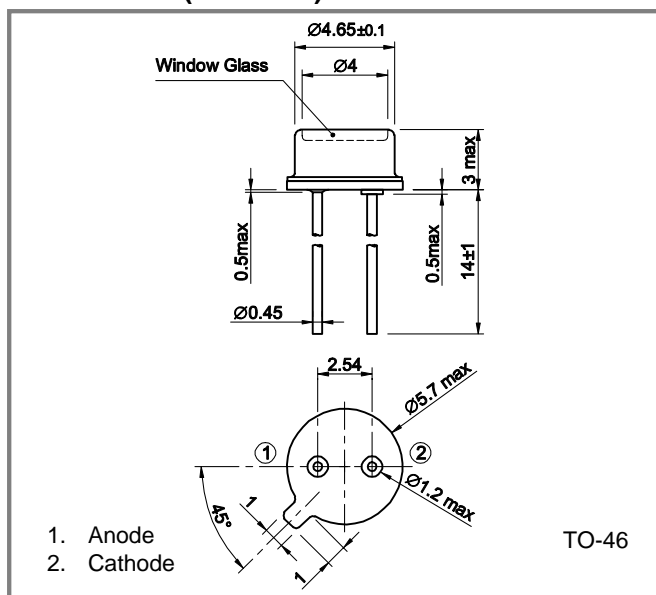
Features

- High reliability and long life
- 50 μ m emitting area

Applications

- High speed optical sensors
- Optical Encoders

Dimensions (unit: mm)



Absolute Maximum Ratings

Parameter	Symbol	Value	Unit	Note
Forward current	I_F	80	mA	
Reverse voltage	V_R	3	V	
Operating temperature	T_{opr}	-20 to +100	°C	Avoid dew condensation
Storage temperature	T_{stg}	-30 to +100	°C	Avoid dew condensation

Electrical and Optical Characteristics (Ta=25 °C unless otherwise noted)

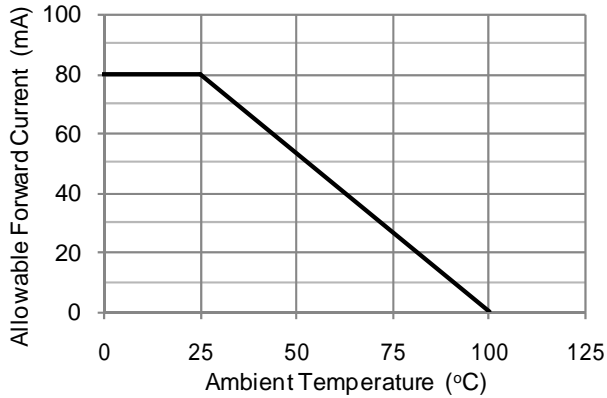
Parameter	Symbol	Min.	Typ.	Max	Unit	Test Conditions
Forward voltage	V_F	-	1.9	2.4	V	$I_F=50\text{mA}$
Reverse current	I_R	-	-	10	μA	$V_R=3\text{V}$
Optical output power	P_o	-	2.4	-	mW	$I_F=50\text{mA}$
Peak emission wavelength	λ_P	-	850	-	nm	$I_F=50\text{mA}$
Cutoff frequency	f_c	-	32	-	MHz	$I_F=50\text{mA}$

Specifications are subject to change without notice.

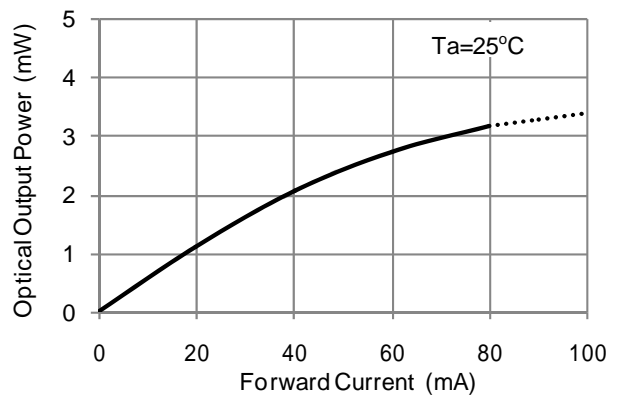
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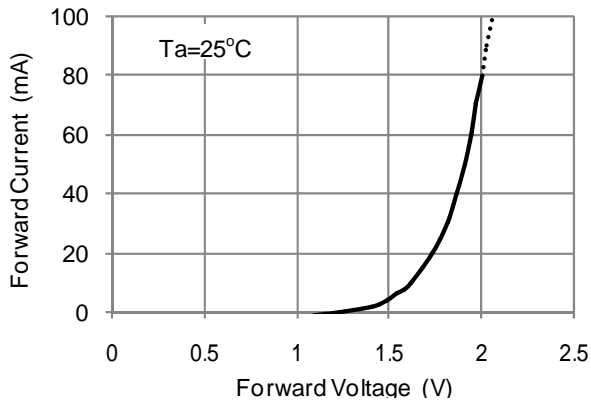
Allowable Forward Current - Ambient Temperature



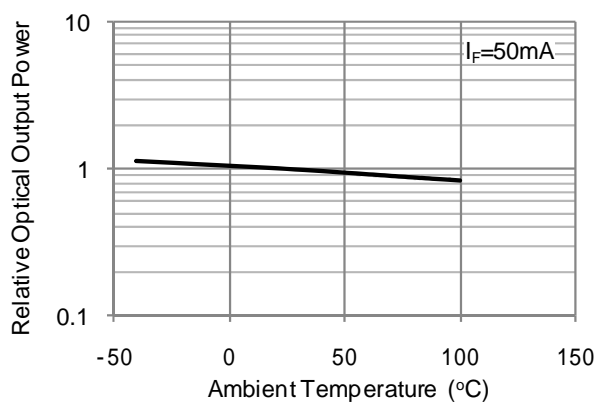
Optical Output Power - Forward Current



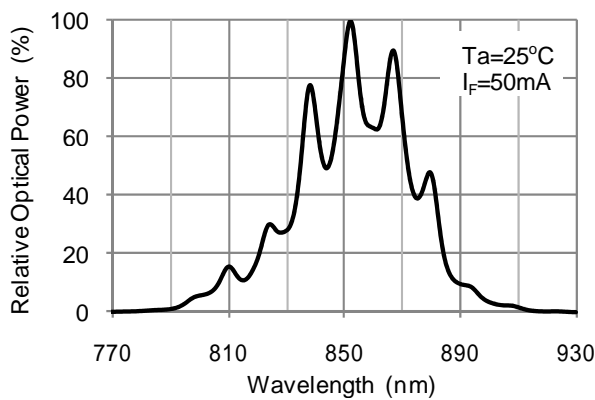
Forward Current - Forward Voltage



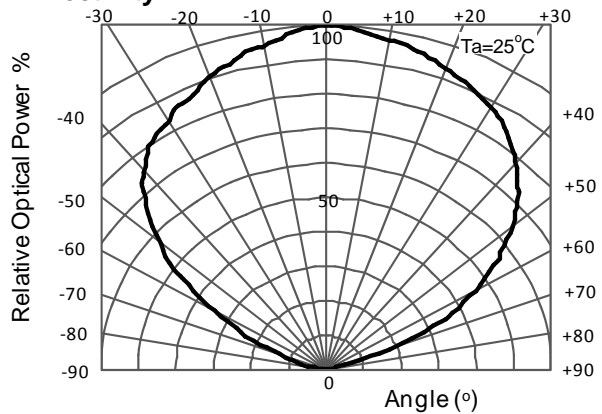
Relative Optical Output Power-Ambient Temperature



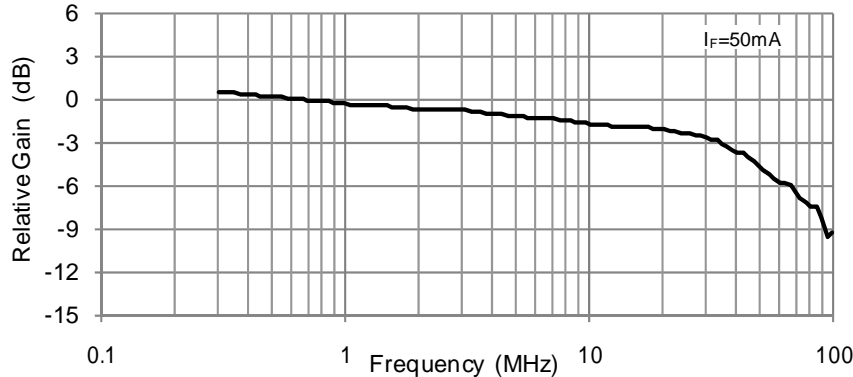
Spectral Distribution



Directivity



Frequency Response



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Contacts:

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