

Parallel Beam LEDs

KED050-H23

Characteristics

- Low profile
- High parallelism
- Uniform light intensity distribution

Applications

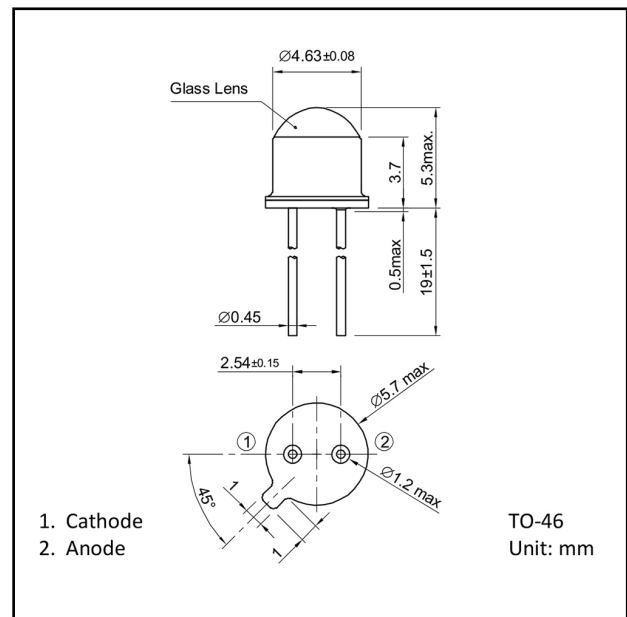
- Rotary encoders
- Linear encoders
- Optical sensors

Chip Material

- GaAlAs

Package

- TO-CAN



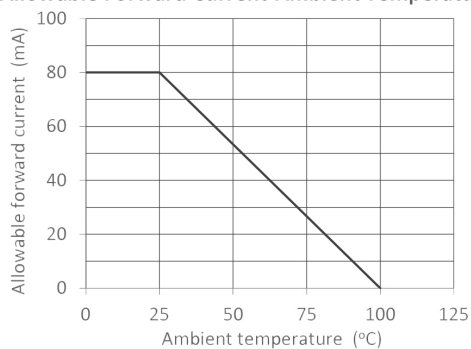
Absolute Maximum Ratings

Parameter	Symbol	Value	Unit	Conditions
Reverse voltage	V_R	3	V	-
			null	
Forward current	I_F	80	mA	$T_a=25$
			null	
Power dissipation	P_D	150	mW	$T_a=25$
			null	
Operating temperature	T_{opr}	-20 to +100		Avoid dew condensation
Storage temperature	T_{stg}	-30 to +100		Avoid dew condensation

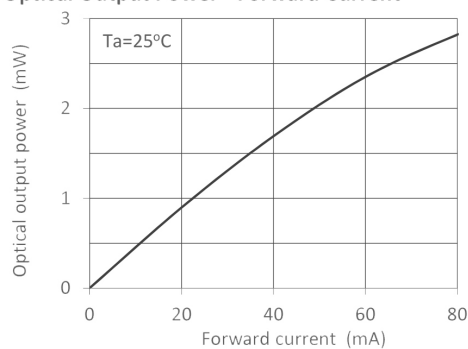
Electrical and Optical characteristics ($T_a=25$ unless otherwise noted)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Reverse Current	I_R	-	-	10	μA	$V_R=3V$
Forward voltage	V_F	-	1.9	2.4	V	$I_F=50mA$
					null	
Optical output power	P_O	1.0	2.0	4.0	mW	$I_F=50mA$
					null	
Peak wavelength	λ_p	-	855	-	nm	$I_F=50mA$
					null	
Spectral width		-	50	-	nm	$I_F=50mA$
					null	
Half angle	2	-	2	-	deg.	$I_F=50mA$
					null	

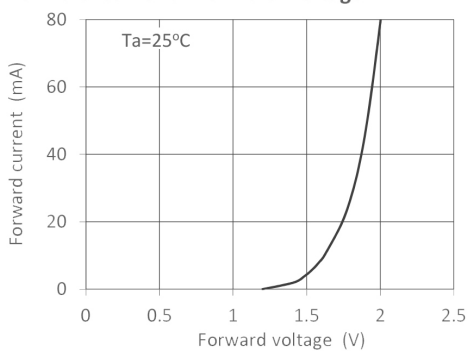
Allowable Forward Current-Ambient Temperature



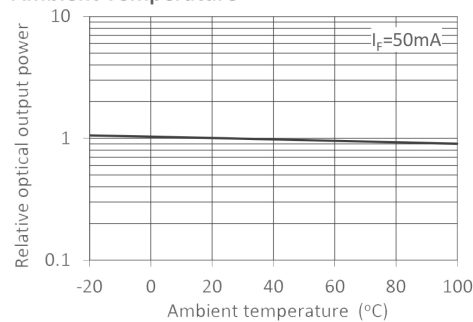
Optical Output Power - Forward Current



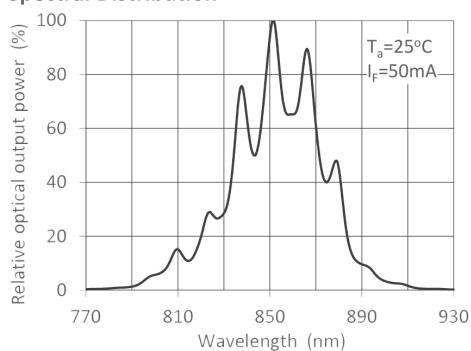
Forward Current - Forward Voltage



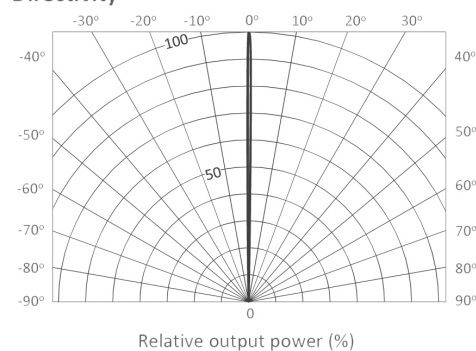
Relative Optical Output Power - Ambient Temperature



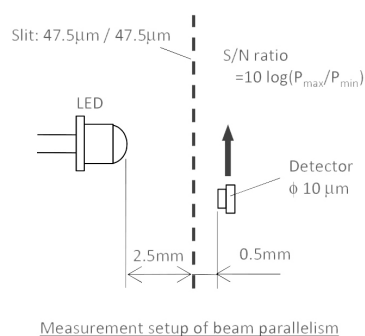
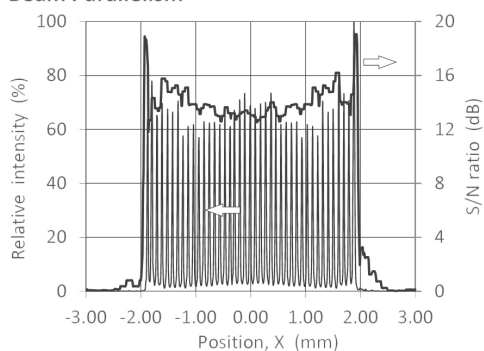
Spectral Distribution



Directivity



Beam Parallelism



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