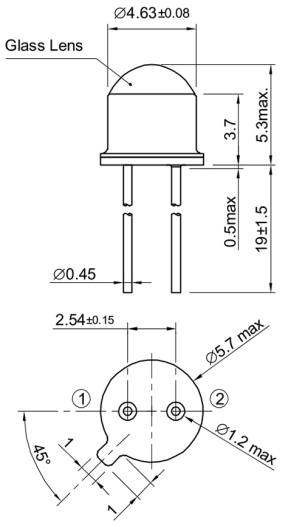
Parallel Beam LEDs

KED358-H23



Characteristics

- Low profile
- High output power
- Uniform light intensity distribution

Applications

- Rotary encoders
- Linear encoders
- Optical sensors

Chip Material

- GaAlAs

Package

- TO-CAN

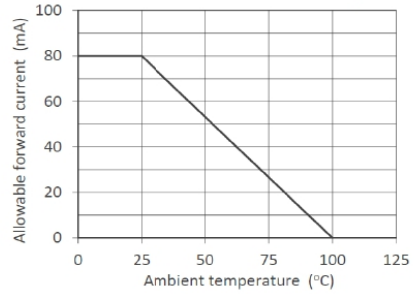
Absolute Maximum Ratings

Parameter	Symbol	Value	Unit	Conditions
Reverse voltage	V_R	5	V null	-
Forward current	I_F	80	mA null	T_a=25°C
Power dissipation	P_D	150	mW null	T_a=25°C
Operating temperature	T_{opr}	-20 to +100	°C	Avoid dew condensation
Storage temperature	T_{stg}	-30 to +100	°C	Avoid dew condensation

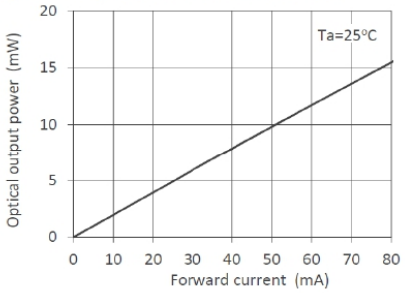
Electrical and Optical characteristics (T_a=25°C unless otherwise noted)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Reverse Current	I_R	-	-	10	μA	V_R=5V
Forward voltage	V_F	-	1.5	2.0	V null	I_F=50mA
Optical output power	P_O	5	10	20	mW null	I_F=50mA
Peak wavelength	λ_p	-	855	-	nm null	I_F=50mA
Spectral width	$\Delta\lambda$	-	30	-	nm null	I_F=50mA
Half angle	2θ	-	7	-	deg. null	I_F=50mA

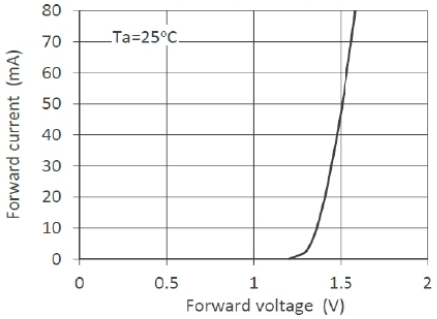
Allowable Forward Current-Ambient Temperature



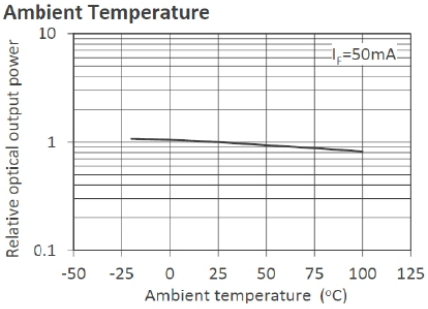
Optical Output Power - Forward Current



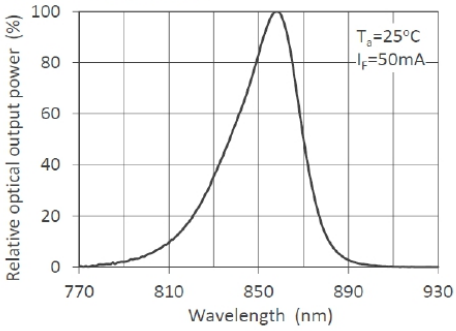
Forward Current - Forward Voltage



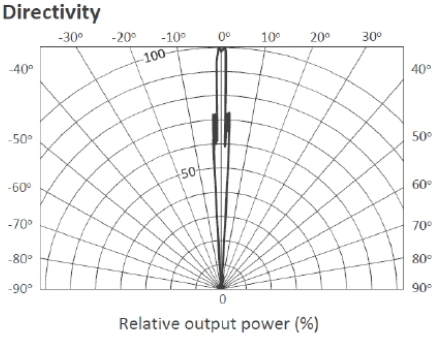
Relative Optical Output Power - Ambient Temperature



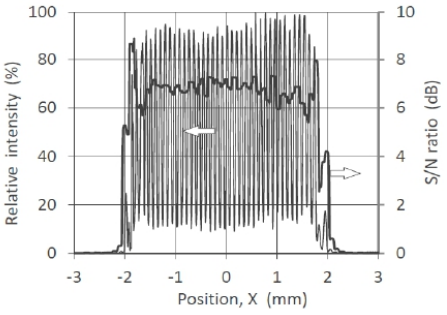
Spectral Distribution

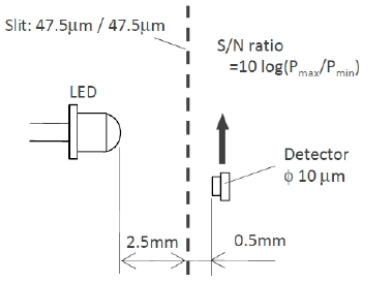


Directivity



Beam Parallelism





Measurement setup of beam parallelism

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