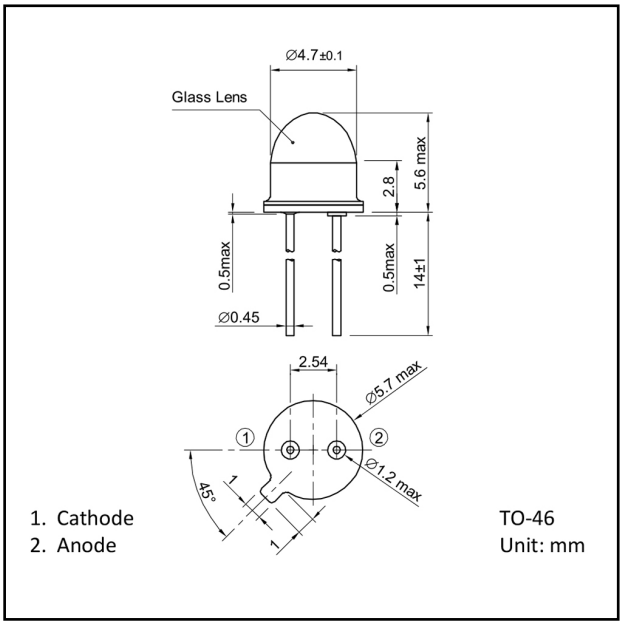
Parallel Beam LEDs

KED358RHDQ



Characteristics

- Parallel beam
- High efficiency and high power
- Highly reliable hermetic seal
- Uniform light intensity distribution

Applications

- Optical switches
- Rotary encoders
- Optical sensors

Chip Material

- GaAlAs

Package

- TO-CAN

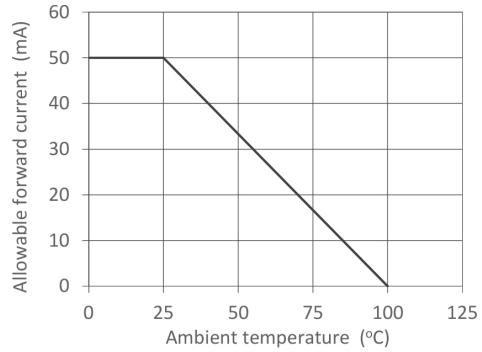
Absolute Maximum Ratings

Parameter	Symbol	Value	Unit	Conditions
Reverse voltage	V_R	6	V	-
Forward current	I_F	50	mA	T_a=25°C
Peak forward current	I_{FP}	0.5	A	Pulse width=100μs Duty ratio=0.1%
Power dissipation	P_D	90	mW	T_a=25°C
Operating temperature	T_{opr}	-40 to +100	°C	Avoid dew condensation
Storage temperature	T_{stg}	-55 to +125	°C	Avoid dew condensation

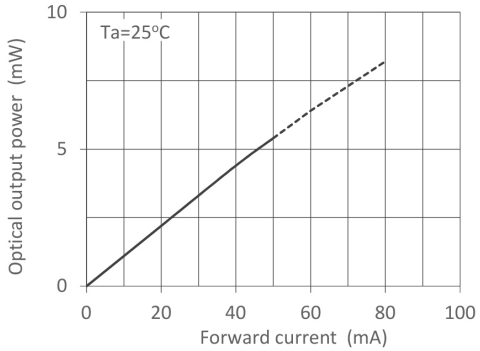
Electrical and Optical characteristics (T_a=25°C unless otherwise noted)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Reverse Current	I_R	-	-	10	μA	V_R=6V
Forward voltage	V_F	-	1.8	2.3	V	I_F=20mA
Optical output power	P_O	-	2	-	mW	I_F=20mA
Peak wavelength	λ_p	-	660	-	nm	I_F=20mA
Spectral width	$\Delta\lambda$	-	25	-	nm	I_F=20mA
Half angle	2θ	-	11	-	deg.	I_F=20mA

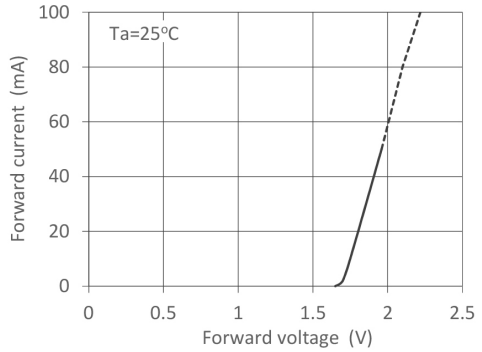
Allowable Forward Current-Ambient Temperature



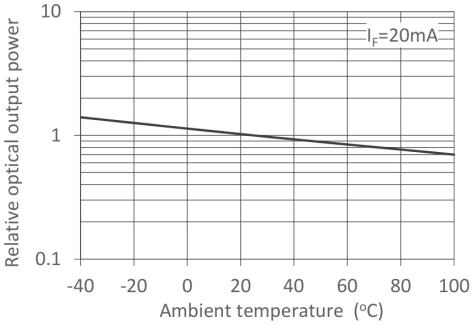
Optical Output Power - Forward Current



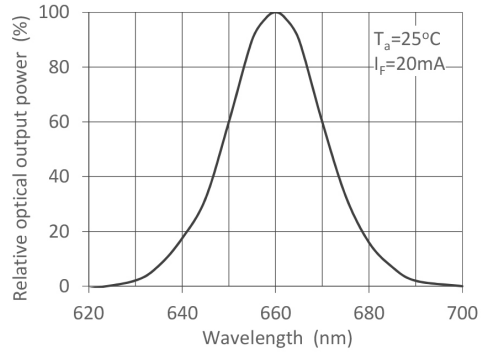
Forward Current - Forward Voltage



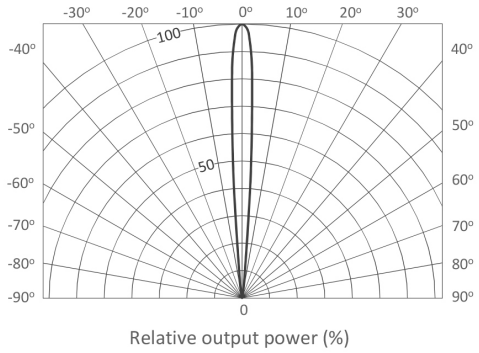
Relative Optical Output Power - Ambient Temperature



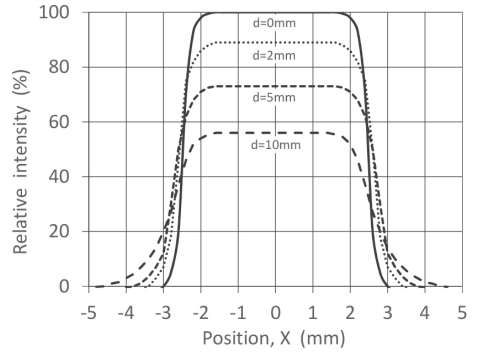
Spectral Distribution

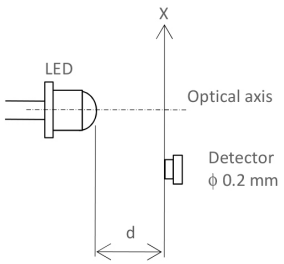


Directivity



Light Intensity Distribution





Measurement setup of light intensity distribution

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