

## Infrared LEDs KEDE1452H

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### Characteristics

- $\lambda = 1450\text{nm}$
- High output power
- Sharp directivity with a glass lens
- Highly reliable hermetic seal
- Direct modulation

### Applications

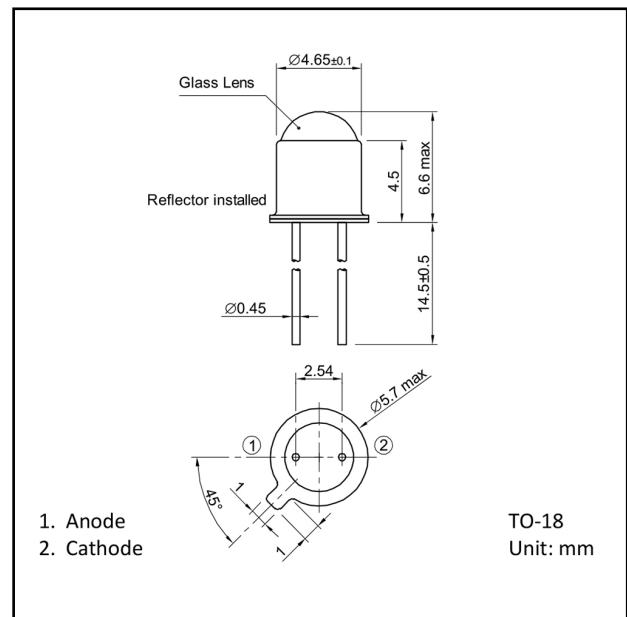
- Optical switches
- Optical instruments
- Water sensors
- Humidity analysis

### Chip Material

- InGaAsP

### Package

- TO-CAN



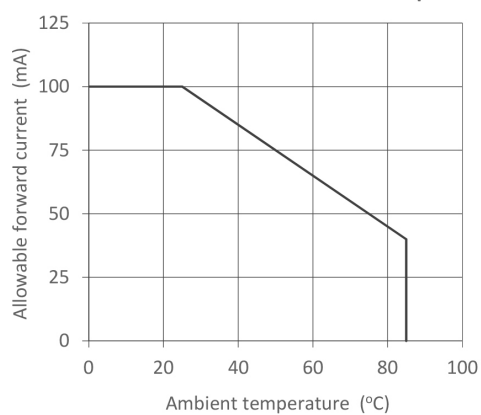
## Absolute Maximum Ratings

Parameter	Symbol	Value	Unit	Conditions
Reverse voltage	$V_R$	5	V	-
Forward current	$I_F$	100	mA	$T_a=25$
Peak forward current	$I_{FP}$	1.0	A	Pulse width=100 $\mu$ s Duty ratio=0.1%
Power dissipation	$P_D$	130	mW	$T_a=25$
Operating temperature	$T_{opr}$	-30 to +85		Avoid dew condensation
Storage temperature	$T_{stg}$	-40 to +100		Avoid dew condensation

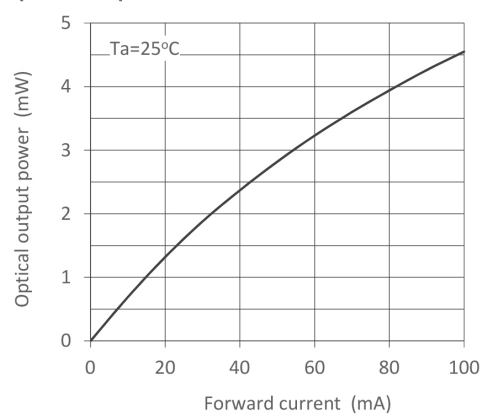
Electrical and Optical characteristics ( $T_a=25$  unless otherwise noted)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Reverse Current	$I_R$	-	-	10	$\mu$ A	$V_R=1V$
Forward voltage	$V_F$	-	0.8	1.3	V	$I_F=50mA$
Optical output power	$P_O$	-	2.8	-	mW	$I_F=50mA$
Peak wavelength	$\lambda_p$	1400	1450	1500	nm	$I_F=50mA$
Spectral width		-	100	-	nm	$I_F=50mA$
Half angle	2	-	20	-	deg.	$I_F=50mA$

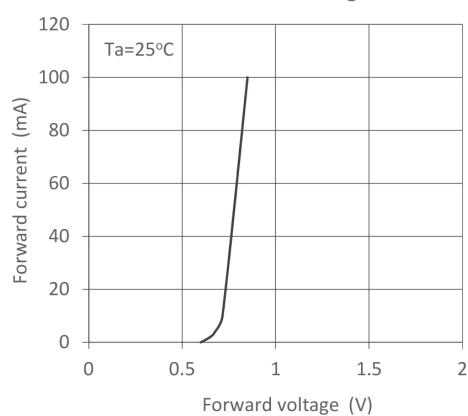
Allowable Forward Current-Ambient Temperature



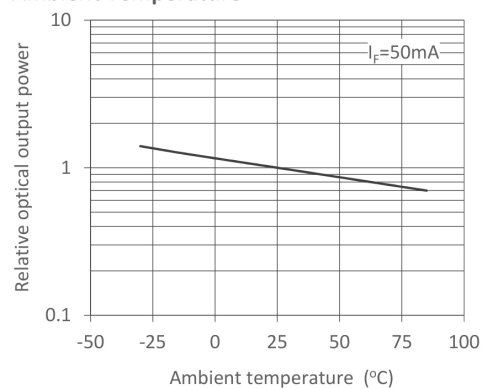
Optical Output Power - Forward Current



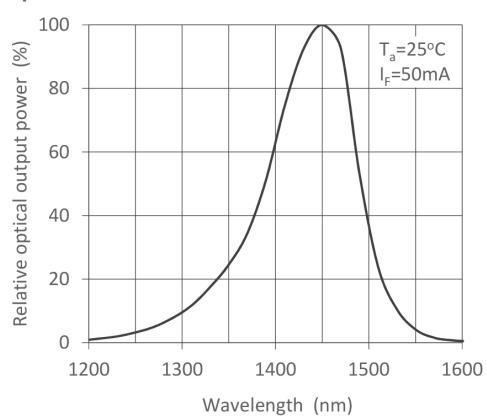
Forward Current - Forward Voltage



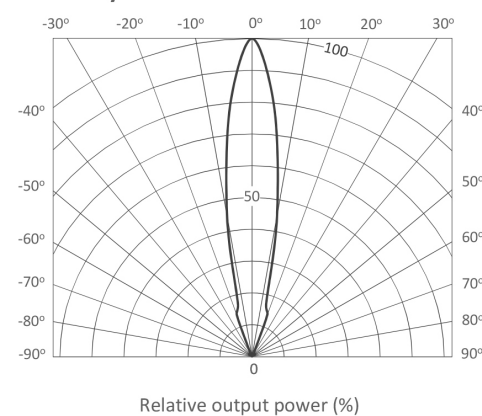
Relative Optical Output Power - Ambient Temperature



Spectral Distribution



Directivity



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