

Point Source LEDs

KED050CXK

Characteristics

- High reliability and long life
- 50µm emitting area

Applications

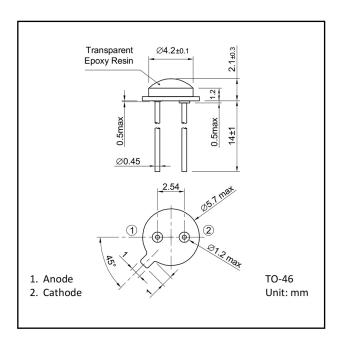
- High speed optical sensors
- Optical encoders

Chip Material

• GaAlAs

Package

• STEM





Absolute Maximum Ratings

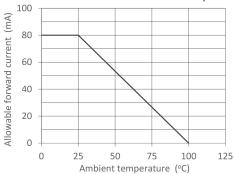
Parameter	Symbol	Value	Unit	Conditions
Reverse voltage	V_R	3	V	-
Forward current	I _F	80	mA	T _a =25
Operating temperature	T _{opr}	-20 to +100		Avoid dew condensation
Storage temperature	T _{stg}	-30 to +100		Avoid dew condensation

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

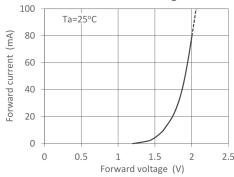
Parameter	Symbol	Min.	Тур.	Max.	Unit	Conditions
Reverse Current	I _R	-	-	10	μΑ	V _R =3V
Forward voltage	V _F	-	1.9	2.4	V	I _F =50mA
Optical output power	Po	-	5.0	-	mW	I _F =50mA
Peak wavelength	р	-	855	-	nm	I _F =50mA
Half angle	2	-	125	-	deg.	I _F =50mA
Cutoff frequency	f _c	-	32	-	MHz	I _F =50mA



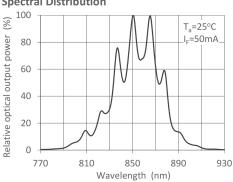
Allowable Forward Current-Ambient Temperature



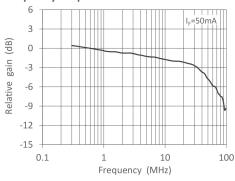
Forward Current - Forward Voltage



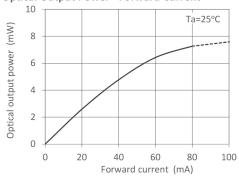
Spectral Distribution



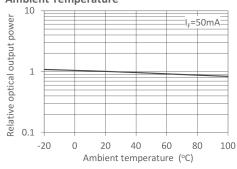
Frequency Response



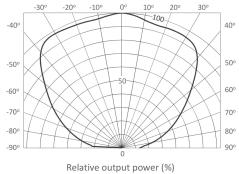
Optical Output Power - Forward Current



Relative Optical Output Power -Ambient Temperature



Directivity





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