

Infrared LEDs KED085-P02

Characteristics

- High output power: 580mW ($I_f=1A$ with heat sink)
- SMD type package
- Broad directivity

Applications

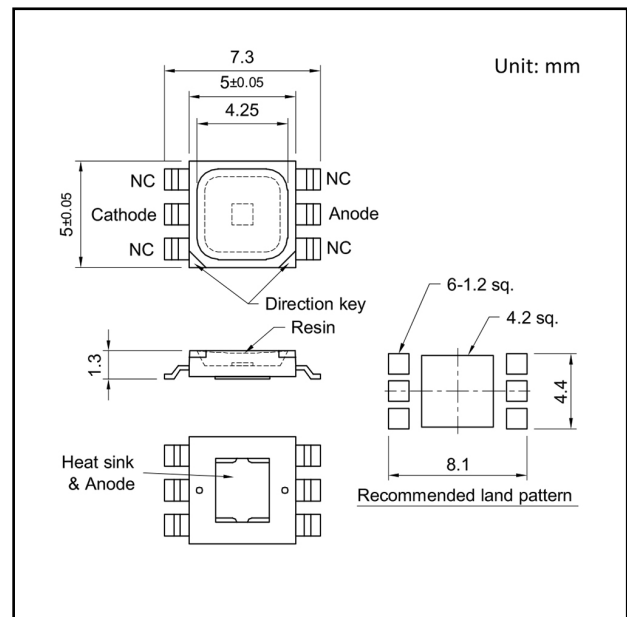
- Infrared illuminations for IR imaging
- Optical switches
- Optical instruments

Chip Material

- GaAlAs

Package

- SMD



Absolute Maximum Ratings

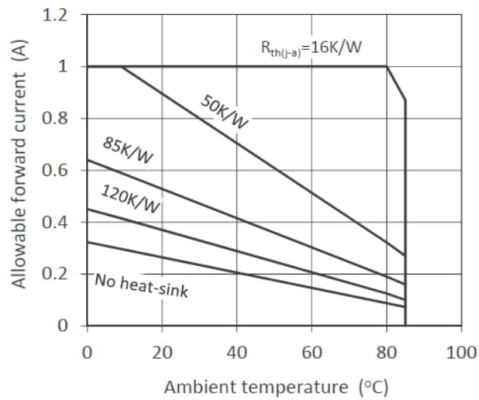
Parameter	Symbol	Value	Unit	Conditions
Reverse voltage	V_R	10	V	-
Forward current	I_F	1000 250	mA	$T_a=25^{\circ}\text{C}$ $R_{th(j-a)}=16\text{K/W}$ $T_a=25^{\circ}\text{C}$ No heat-sink
Dice temperature	T_j	115		-
Operating temperature	T_{opr}	-20 to +85		Avoid dew condensation
Storage temperature	T_{stg}	-30 to +100		Avoid dew condensation

Electrical and Optical characteristics ($T_a=25$ $R_{th(j-a)}=16\text{K/W}$ unless otherwise noted)

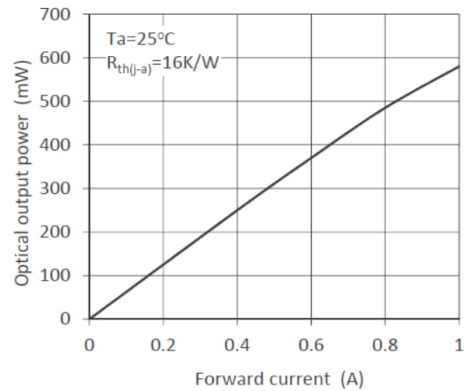
Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Reverse Current	I_R	-	-	10	μA	$V_R=10\text{V}$
Forward voltage	V_F	-	2.1 1.4	-1.7	V	$I_F=1\text{A}$ $I_F=100\text{mA}$ No heat-sink
Optical output power	P_O	-	580 60	-	mW	$I_F=1\text{A}$ $I_F=100\text{mA}$ No heat-sink
Peak wavelength	λ_p	-	855	-	nm	$I_F=1\text{A}$
Spectral width		-	25	-	nm	$I_F=1\text{A}$
Half angle	2	-	130	-	deg.	-

$R_{th(j-a)}$: Thermal resistance from dice to ambient

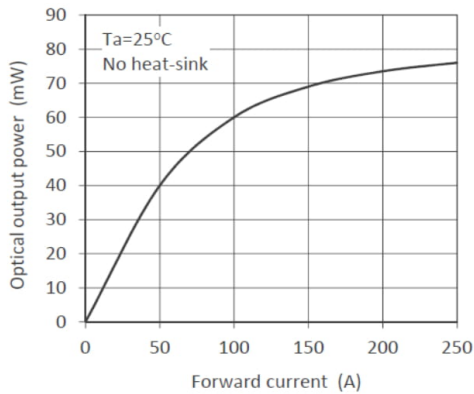
Allowable Forward Current-Ambient Temperature



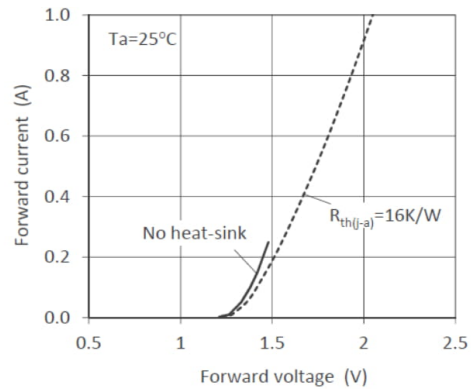
Optical Output Power - Forward Current



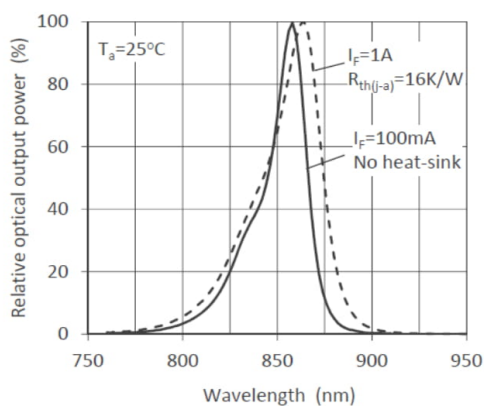
Optical Output Power - Forward Current



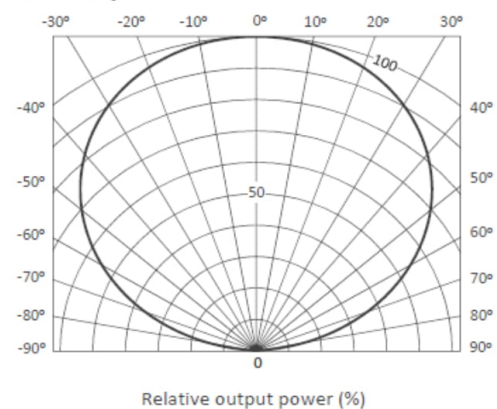
Forward Current - Forward Voltage



Spectral Distribution



Directivity



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