

Multi Wavelength LEDs

KED541H

Characteristics

- Red and IR emitters in a single package
- Broad directivity with a glass lens
- Highly reliable hermetic seal
- Direct modulation

Applications

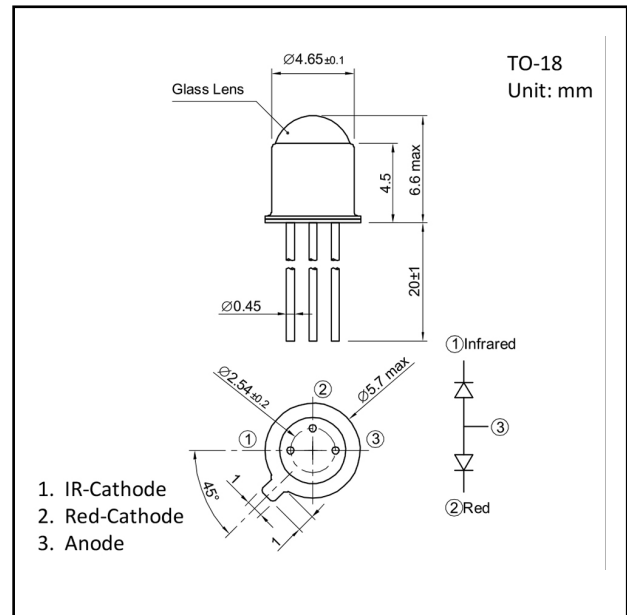
- Bull recognition
- Color sensors

Chip Material

- Red : GaAlAs
- Infrared : GaAlAs

Package

- TO-CAN



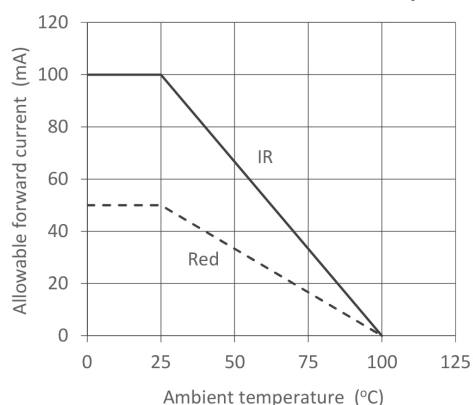
Absolute Maximum Ratings

Parameter	Symbol	Wavelength	Value	Unit	Conditions
Reverse voltage	V_R	Red	5	V	-
		Infrared	5		
Forward current	I_F	Red	50	mA	$T_a=25$
		Infrared	100		
Peak forward current	I_{FP}	Red	0.5	A	Pulse width=100 μ s Duty ratio=0.1%
		Infrared	1		Puls width=100 μ s Duty ratio=0.1%
Power dissipation	P_D	Red	100	mW	150mW max.in total
		Infrared	150		
Operating temperature	T_{opr}	-	-25 to +100		Avoid dew condensation
Storage temperature	T_{stg}	-	-40 to +100		Avoid dew condensation
Soldering temperature	T_{sol}	-	260		Max 5 sec. at 2.6mm from body

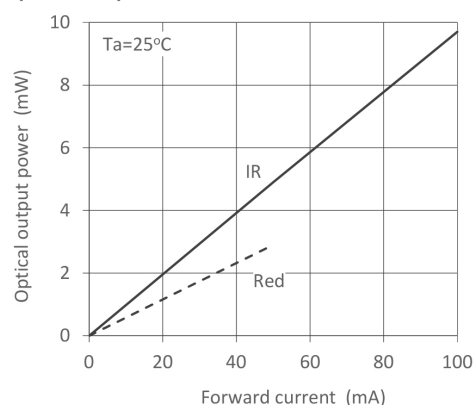
Electrical and Optical characteristics ($T_a=25$ unless otherwise noted)

Parameter	Symbol	Wavelength	Min.	Typ.	Max.	Unit	Conditions
Reverse Current	I_R	-	-	-	10	μ A	$V_R=5V$
Forward voltage	V_F	Red	-	1.8	2.3	V	$I_F=50mA$
		Infrared	-	1.3	1.6		
Optical output power	P_O	Red	-	3	-	mW	$I_F=50mA$
		Infrared	-	5	-		
Peak wavelength	λ_p	Red	-	660	-	nm	$I_F=50mA$
		Infrared	-	880	-		
Spectral width		Red	-	20	-	nm	$I_F=50mA$
		Infrared	-	55	-		
Half angle	2	Red	-	10	-	deg.	$I_F=50mA$
		Infrared	-	10	-		

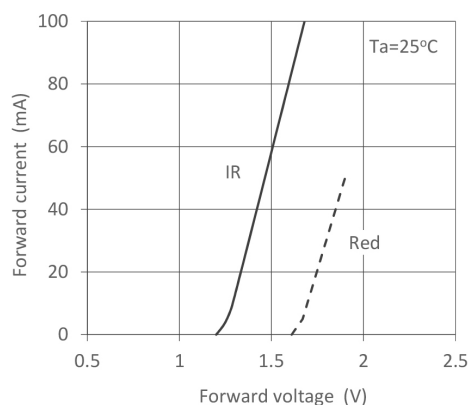
Allowable Forward Current-Ambient Temperature



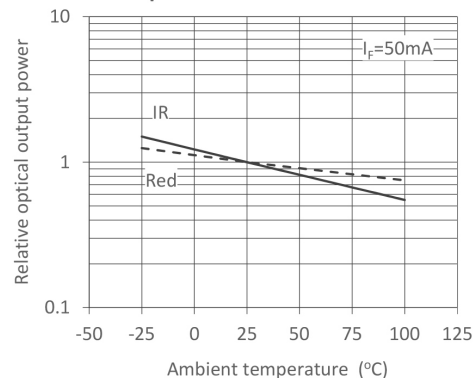
Optical Output Power - Forward Current



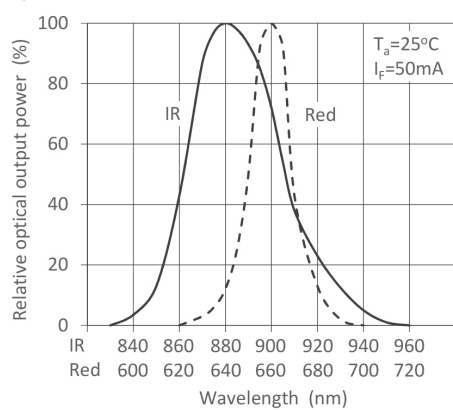
Forward Current - Forward Voltage



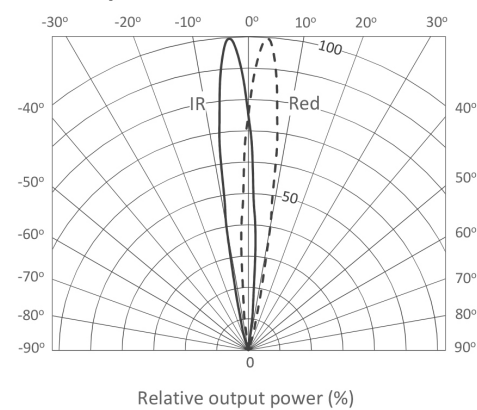
Relative Optical Output Power - Ambient Temperature



Spectral Distribution



Directivity



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