

Multi-wavelength LED

KED541H

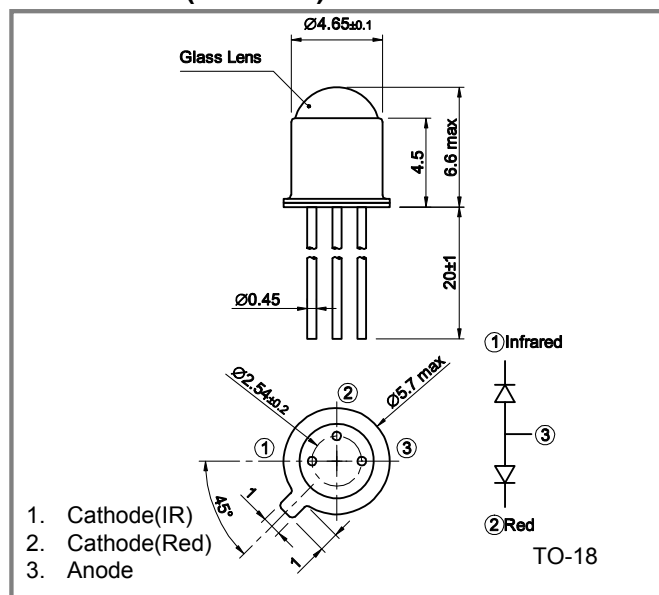
Features

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

Applications

- Bill recognition
- Color sensors
- Spectroscopic sensors

Dimensions (unit: mm)



Absolute Maximum Ratings

Parameter	Symbol	Value		Unit	Note
		Infrared	Red		
Forward current	I_F	100	50	mA	$T_a=25^{\circ}\text{C}$
Peak forward current	I_{FP}	1	0.5	A	Pulse width=100 μs , Duty ratio=0.1%
Reverse voltage	V_R	5	5	V	
Power dissipation	P_D	150	100	mW	Max. power dissipation=100mW
Operating temperature	T_{opr}	-25 to +100		$^{\circ}\text{C}$	Avoid dew condensation
Storage temperature	T_{stg}	-40 to +100		$^{\circ}\text{C}$	Avoid dew condensation
Soldering temperature	T_{sol}	260		$^{\circ}\text{C}$	Max 5 sec. at 2.6mm above case bottom

Electrical and Optical Characteristics ($T_a=25^{\circ}\text{C}$ unless otherwise noted)

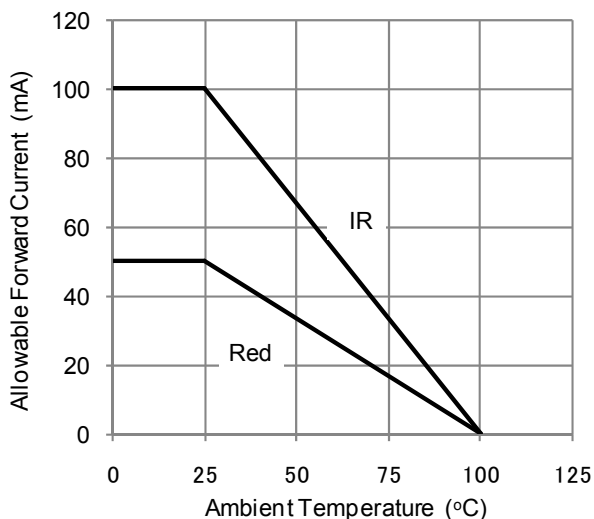
Parameter	Symbol	Min.	Typ.	Max	Unit	Test Conditions
Forward voltage	Infrared	-	1.3	1.6	V	$I_F=50\text{mA}$
	Red		1.8	2.3		$I_F=50\text{mA}$
Reverse current	I_R	-	-	10	μA	$V_R=5\text{V}$
Optical output power	Infrared	-	5	-	mW	$I_F=50\text{mA}$
	Red		3			$I_F=50\text{mA}$
Peak emission wavelength	Infrared	-	880	-	nm	$I_F=50\text{mA}$
	Red		660			$I_F=50\text{mA}$
Spectral bandwidth at 50%	Infrared	-	55	-	nm	$I_F=50\text{mA}$
	Red		20			$I_F=50\text{mA}$
Half angle	Infrared	-	10	-	deg	$I_F=50\text{mA}$
	Red		10			$I_F=50\text{mA}$

Specifications are subject to change without notice.

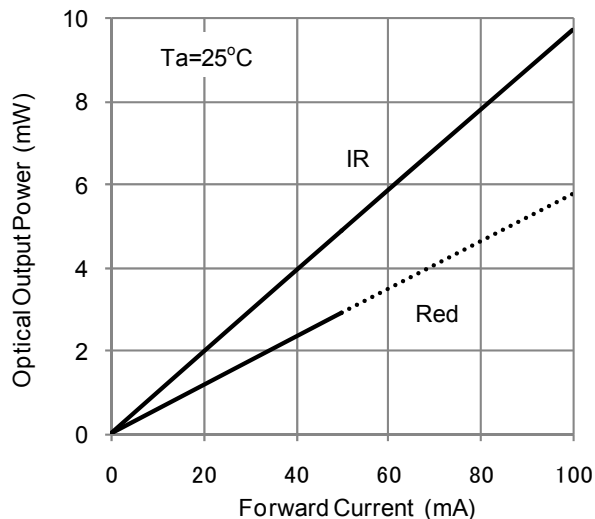
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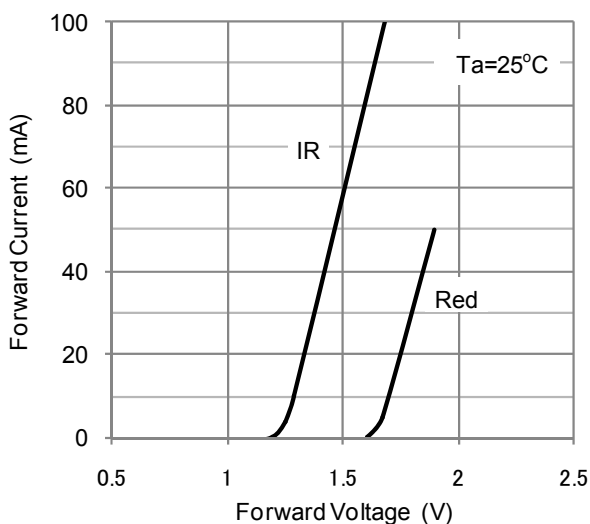
Allowable Forward Current - Ambient Temperature



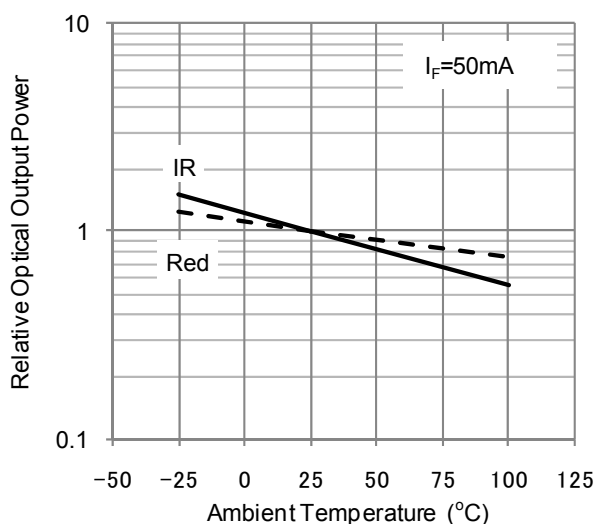
Optical Output Power - Forward Current



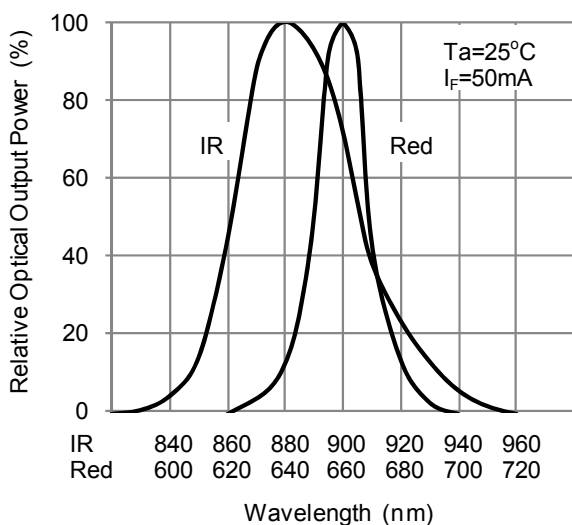
Forward Current - Forward Voltage



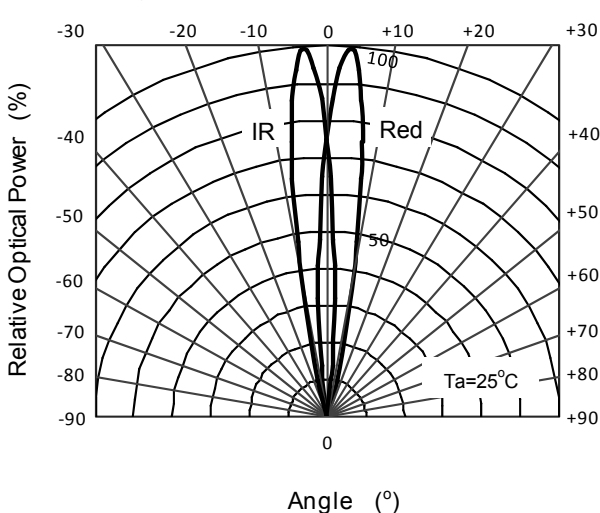
Relative Optical Output Power - Ambient Temperature



Spectral Distribution



Directivity



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Contacts:

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