

Multi-wavelength LED

KED691DS3

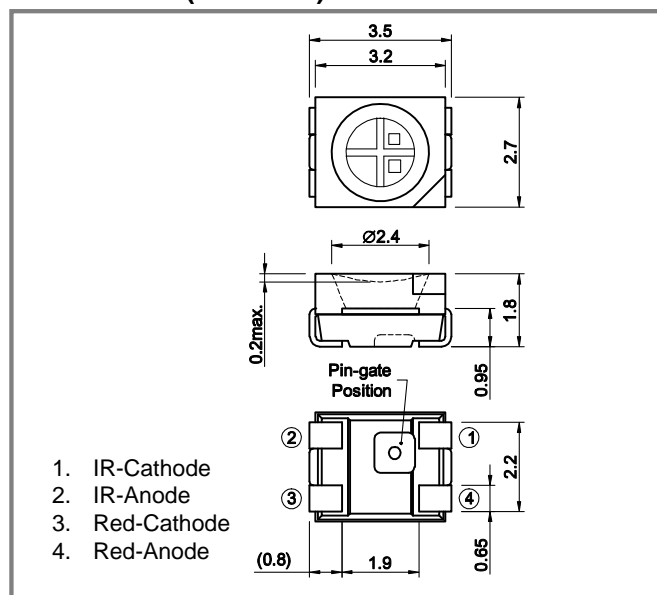
Features

- Red and IR emitters in a single package
- 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	50	30	mA	$T_a=25^{\circ}\text{C}$
Peak forward current	I_{FP}	0.5	0.3	A	Pulse width=100 μs , Duty ratio=0.1%
Reverse voltage	V_R	6	6	V	
Power dissipation	P_D	70	70	mW	Max. power dissipation=100mW
Operating temperature	T_{opr}	-20 to +80		$^{\circ}\text{C}$	Avoid dew condensation
Storage temperature	T_{stg}	-25 to +100		$^{\circ}\text{C}$	Avoid dew condensation
Soldering temperature	T_{sol}	350		$^{\circ}\text{C}$	Max 3 sec.

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

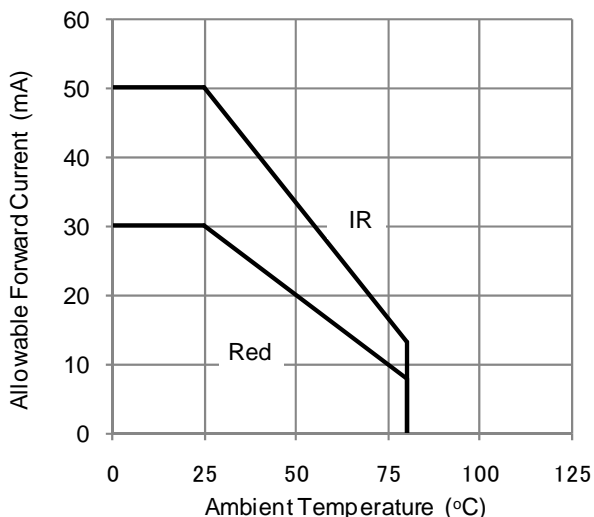
Parameter		Symbol	Min.	Typ.	Max	Unit	Test Conditions
Forward voltage	Infrared	V_F	-	1.2	1.4	V	$I_F=20\text{mA}$
	Red			1.7	2.0		
Reverse current		I_R	-	-	10	μA	$V_R=6\text{V}$
Optical output power	Infrared	P_o	4	-	7	mW	$I_F=20\text{mA}$
	Red			2.5	7		
Peak emission wavelength	Infrared	λ_P	-	940	-	nm	$I_F=20\text{mA}$
	Red			660			
Spectral bandwidth at 50%	Infrared	$\Delta\lambda$	-	50	-	nm	$I_F=20\text{mA}$
	Red			20			
Half angle	Infrared	2θ	-	115	-	deg	$I_F=20\text{mA}$
	Red			115			

Specifications are subject to change without notice.

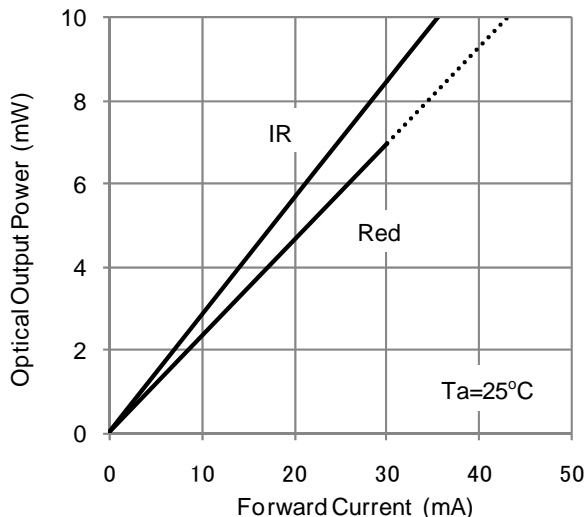
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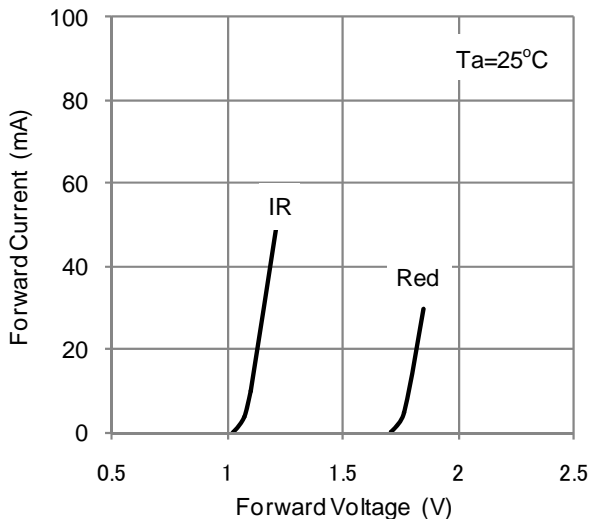
Allowable Forward Current - Ambient Temperature



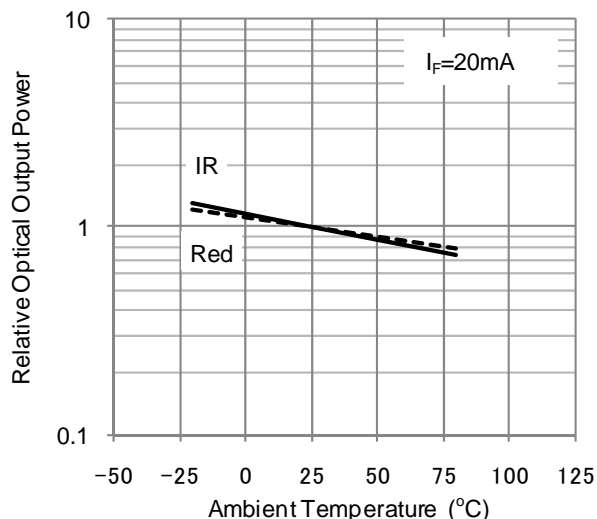
Optical Output Power - Forward Current



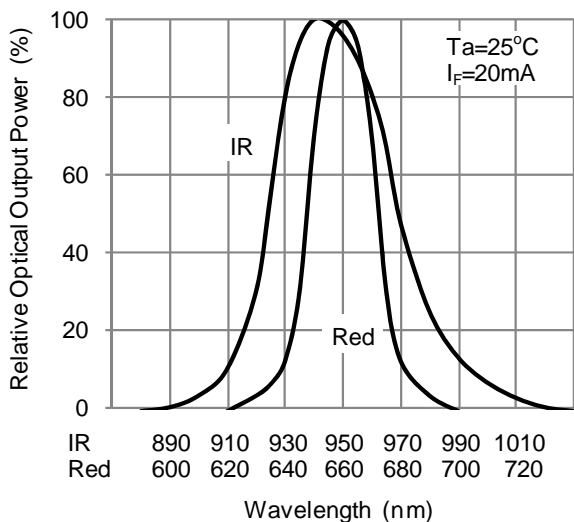
Forward Current - Forward Voltage



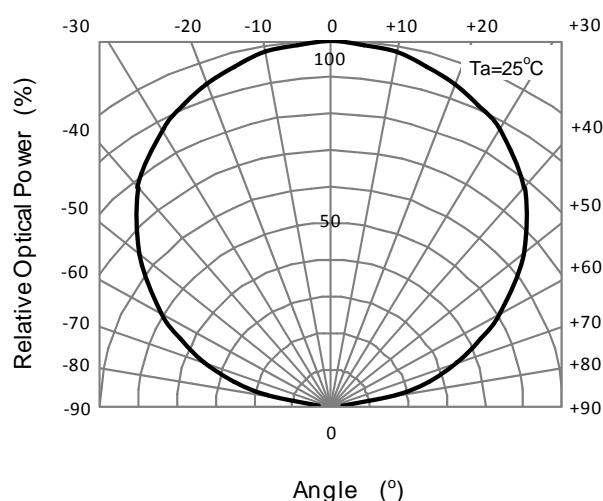
Relative Optical Output Power - Ambient Temperature



Spectral Distribution



Directivity



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Contacts:

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