

## Multi-wavelength LED

KED694M31D

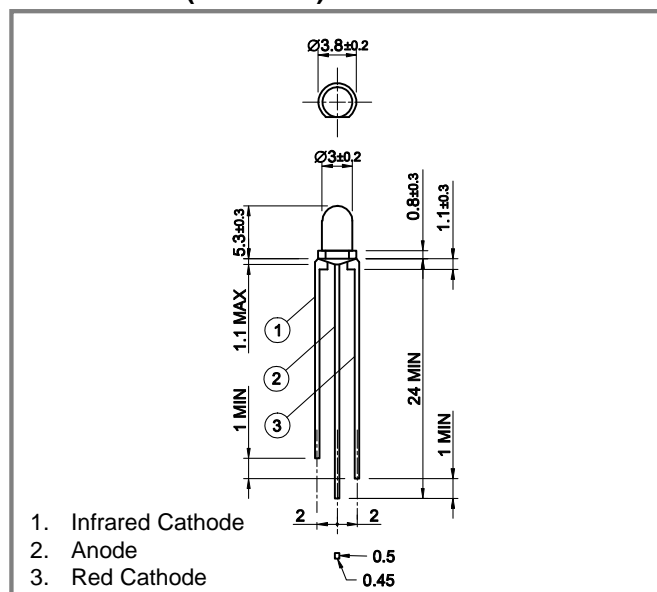
## Features

- 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 $\mu\text{s}$ , 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	$T_{stg}$	-30 to +100		$^\circ\text{C}$	Avoid dew condensation
Soldering temperature	$T_{sol}$	260		$^\circ\text{C}$	Max 5 sec.

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

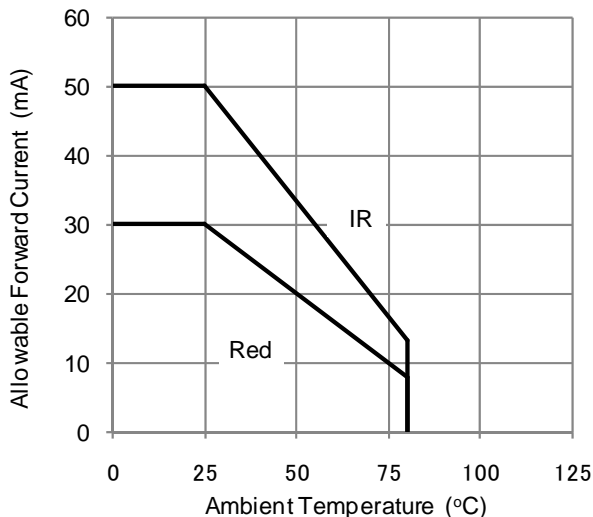
Parameter		Symbol	Min.	Typ.	Max	Unit	Test Conditions
Forward voltage	Infrared	$V_F$	-	1.2	1.4	V	$I_F=20\text{mA}$
	Red			1.7	2.0		
Reverse current		$I_R$	-	-	10	$\mu\text{A}$	$V_R=6\text{V}$
Optical output power	Infrared	$P_o$	-	2.0	-	mW	$I_F=20\text{mA}$
	Red			4.0			
Peak emission wavelength	Infrared	$\lambda_P$	-	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	$2\theta$	-	21	-	deg	$I_F=20\text{mA}$
	Red			38			

Specifications are subject to change without notice.

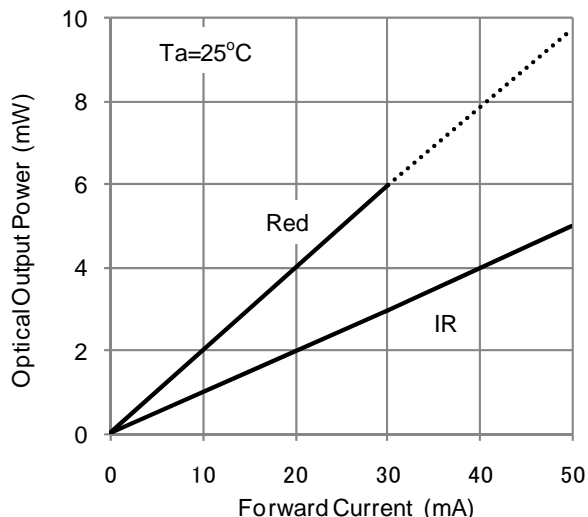
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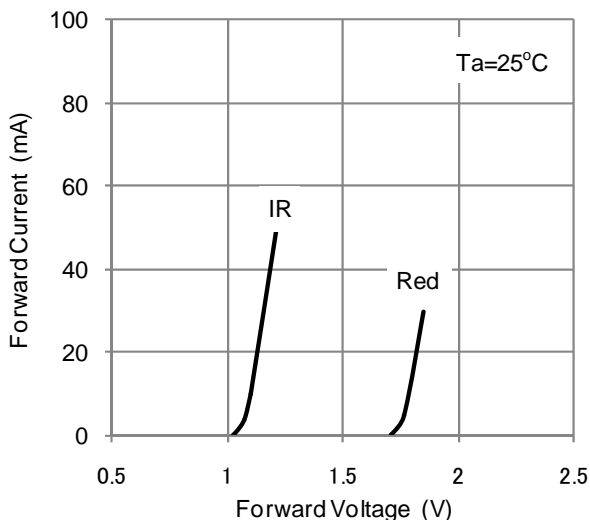
**Allowable Forward Current - Ambient Temperature**



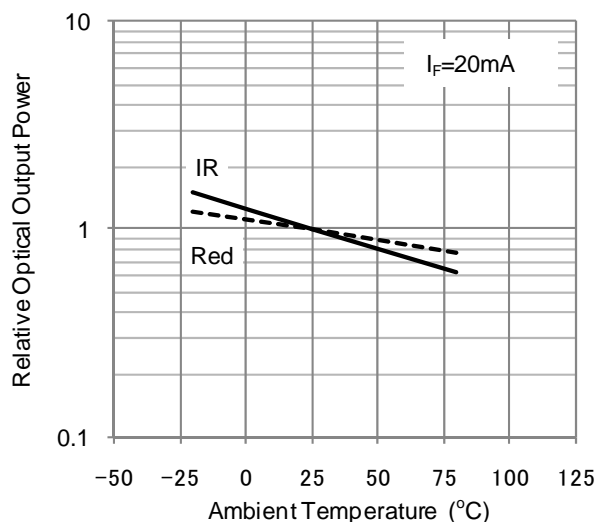
**Optical Output Power - Forward Current**



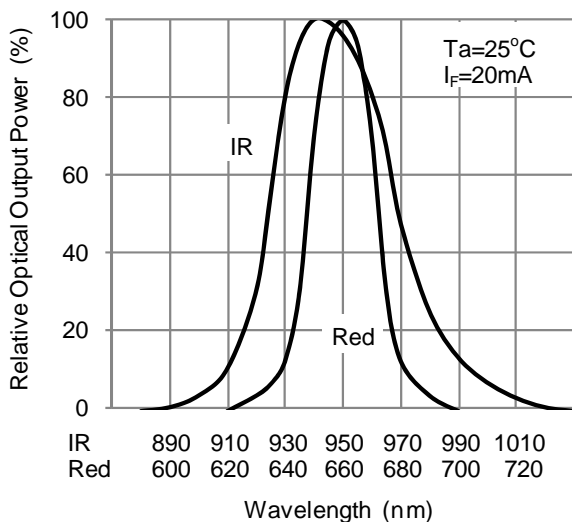
**Forward Current - Forward Voltage**



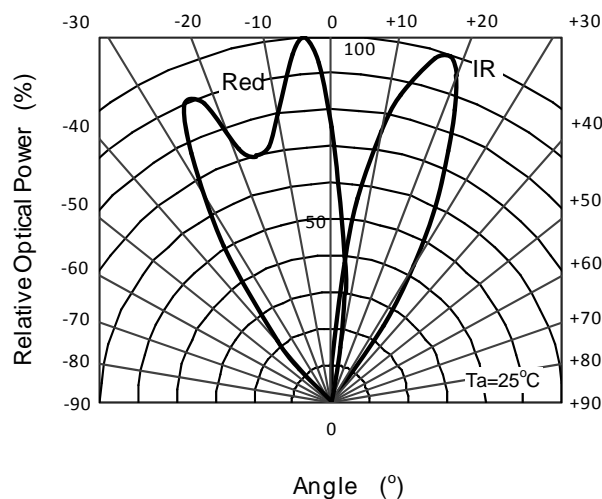
**Relative Optical Output Power-Ambient Temperature**



**Spectral Distribution**



**Directivity**



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**Contacts:**

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