

KL856

Description

Model **KL856** is 2 C/W (890/660nm) Light Emitting Diode mounted in TO-18 type header with lens can.

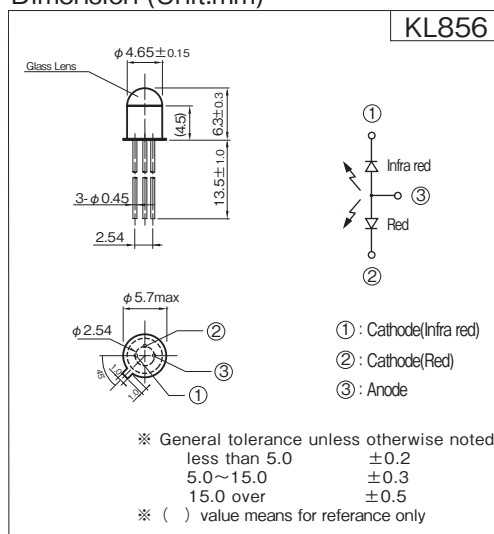
Feature

- 2 C/W LED: Red (λ_p :660nm) and Infra Red (λ_p :890nm)
- TO-18 package.
- Narrow Beam Angle($\theta : \pm 10^\circ$), High power

Application

- Light source for printing discrimination.
- Light source for color sensor.
- Light source for paper quality discrimination.

Dimension (Unit:mm)



Absolute Maximum Ratings

[Ta=25°C Unless otherwise noted]

Item	Symbol	Rating		Units
		Red	Infra Red	
Power Dissipation ^{*1}	P	100	150	mW
Forward Current	I _F	50	100	mA
Pulse Forward Current ^{*2}	I _{FP}	0.5	1	A
Reverse Voltage	V _R	5	5	V
Operating Temperature	T _{opr}	-20 ~ +85		°C
Storage Temperature	T _{stg}	-40 ~ +100		°C
Soldering Temperature ^{*3}	T _{sol}	260		°C

* 1. Power Dissipation is max. 150mW

* 2. Pulse width $\leq 100 \mu$ sec, Duty ratio=0.01

* 3. Soldering condition 5sec. At 2.6mm over from TO-18 header.

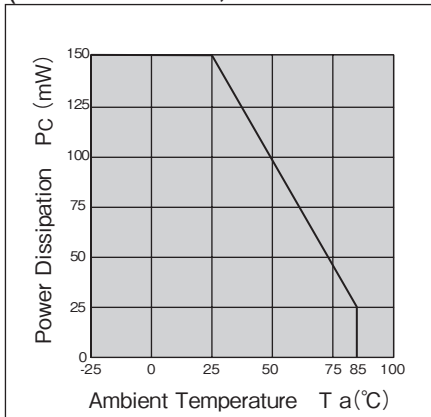
Electro-Optical Characteristics [Ta=25°C Unless otherwise noted]

Item		Symbol	Condition	min.	typ.	max.	Units
Forward Voltage	R e d	V _F	I _F =25mA	—	1.75	2.3	V
	Infra Red		I _F =50mA	—	1.42	1.7	
Reverse Current		I _R	V _R =5V	—	—	10	μ A
Power Output	R e d	P _O	I _F =25mA	0.17	0.35	—	mW
	Infra Red		I _F =50mA	1.60	3.20	—	
Peak Wavelength	R e d	λ_p	I _F =25mA	—	660	—	nm
	Infra Red		I _F =50mA	—	890	—	
Full Width of Half Maximum	R e d	$\Delta \lambda$	I _F =25mA	—	20	—	nm
	Infra Red		I _F =50mA	—	70	—	
H a l f A n g l e		$\Delta \theta$		—	± 10	—	deg

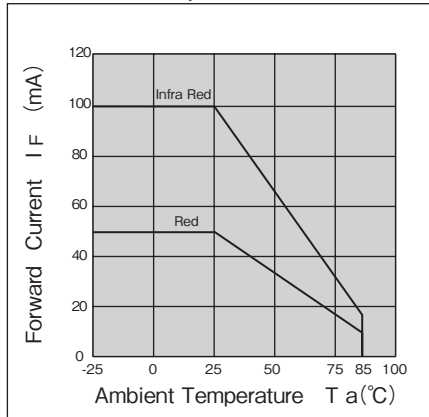
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Note: Operation never exceeds each value of Absolute Maximum Ratings.

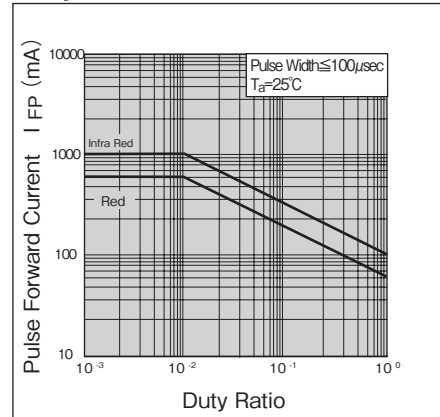
Power Dissipation vs.
Ambient Temperature
(Infra Red+ Red)



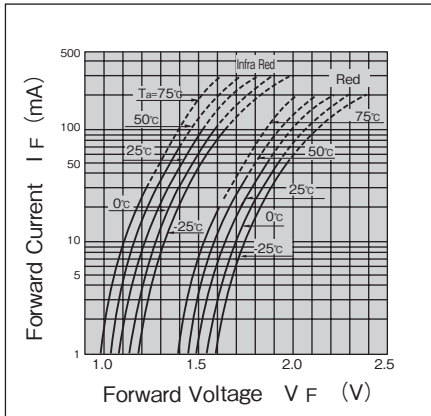
Forward Current vs.
Ambient Temperature



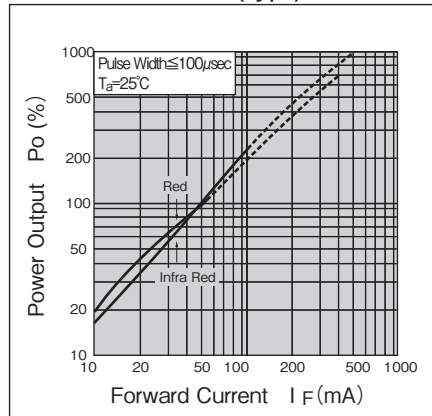
Pulse Forward Current vs.
Duty Ratio



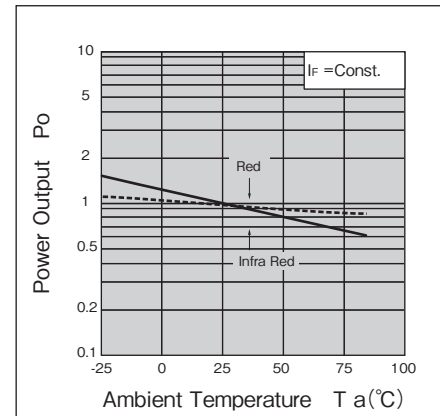
Forward Current vs.
Forward Voltage (typ.)



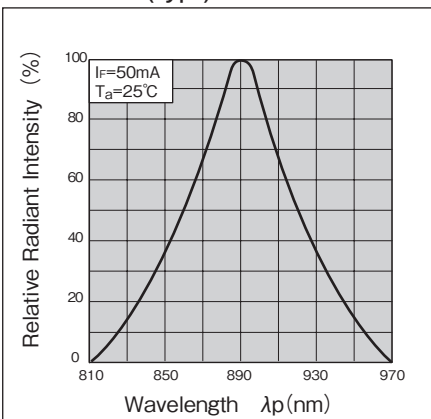
Power Output vs.
Forward Current (typ.)



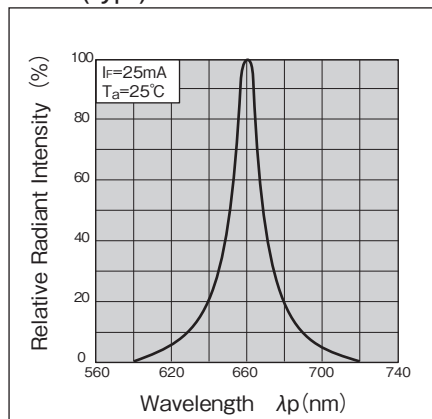
Power Output vs.
Ambient Temperature (typ.)



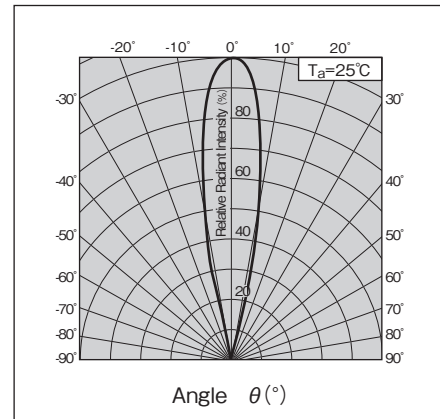
Spectral Wavelength
-Infra Red (typ.)



Spectral Wavelength
-Red (typ.)



Directivity (typ.)



- A Custom designed package is available on request.
- Specification are subject to change without notice.

04.09-1A

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