

Photo Reflector

KR1570

Tentative
UV LED Type

Description

Model **KR1570** consists of an ultraviolet LED and a silicon photodiode.

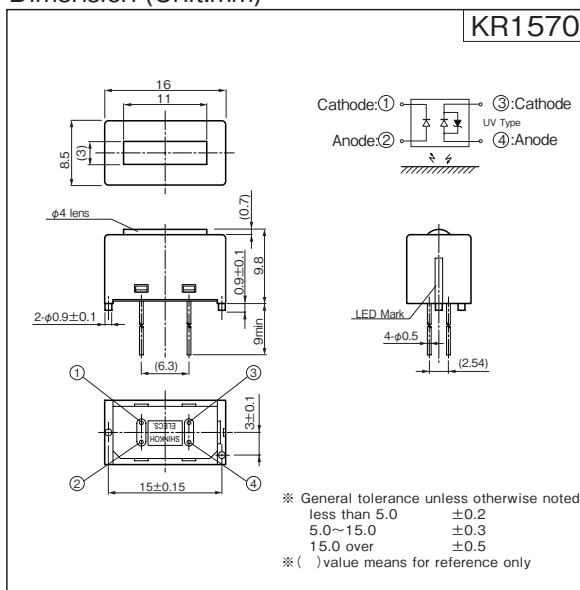
Feature

- Peak wavelength 365nm.
- UV cut filter on detection surface.
- Installed on PC board.

Application

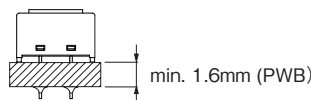
- Bill discrimination by functional ink.
- Scanning of Bill for Validator.
- Paper detection by ultraviolet rays .

Dimension (Unit:mm)



Absolute Maximum Ratings [Ta=25°C Unless otherwise noted]

Item	Symbol	Rating	Units
Emitter	Forward Current	I _F	25
	Pulse Forward Current※1	I _{FP}	80
	Reverse Current	I _R	85
	Power Dissipation	P	100
Detector	Reverse Voltage	V _R	30
	Power Dissipation	P _C	100
Operating Temperature		T _{opr}	-10 ~ +65 °C
Storage Temperature		T _{stg}	-30 ~ +85 °C
Soldering Temperature※2		T _{sol}	330 °C



- ※ 1. Pulse width $t_w \leq 10\text{m sec}$ Duty ratio=1/10 max.
- ※ 2. Soldering condition
By soldering copper.3sec. At PWB
- ※ 3. $d=2.0\text{mm}$, 90% Reflective paper
- ※ 4. No Object, in Dark

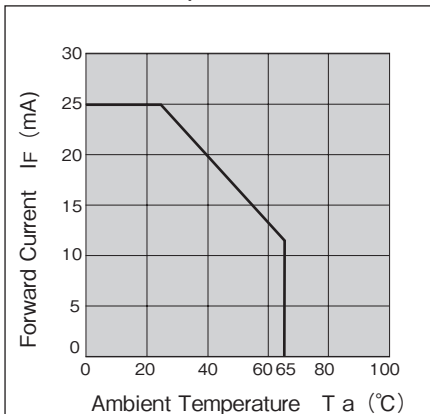
Electro-Optical Characteristics [Vcc=5V, Ta=25°C Unless otherwise noted]

Item	Symbol	Condition	min.	typ.	max.	Units
Emitter	Forward Voltage	I _F =10mA	—	3.4	4.0	V
	Peak Wavelength	I _F =10mA	—	365	—	nm
Detector	Dark Current	V _R =10V, I _F =0mA	—	—	10	n A
Coupled	Short Circuit※3	I _F =10mA	40	160	—	n A
	Current Leak Current※4	I _F =10mA	—	—	20	n A

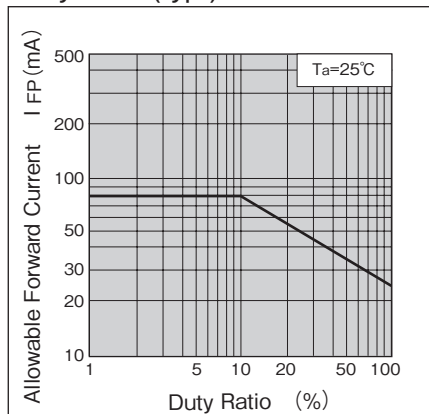
KR1570

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

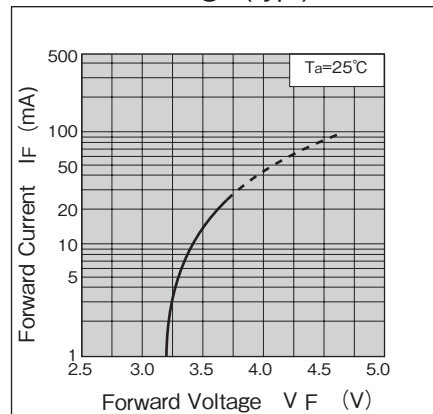
Forward Current vs. Ambient Temperature



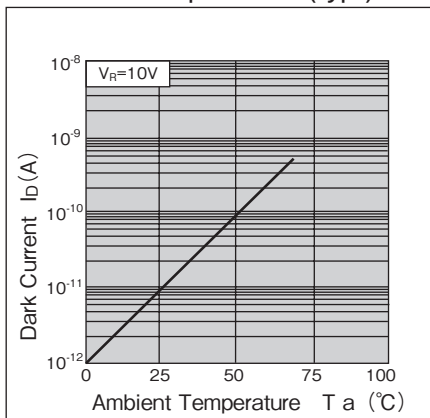
Allowable Forward Current vs. Duty Ratio (typ.)



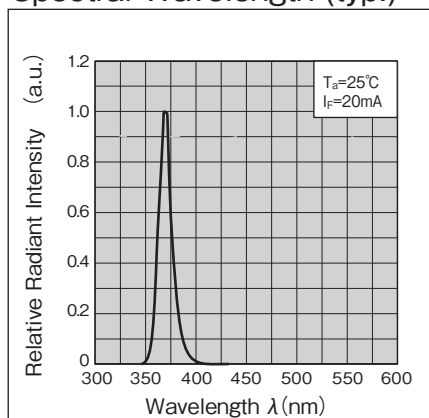
Forward Current vs. Forward Voltage (typ.)



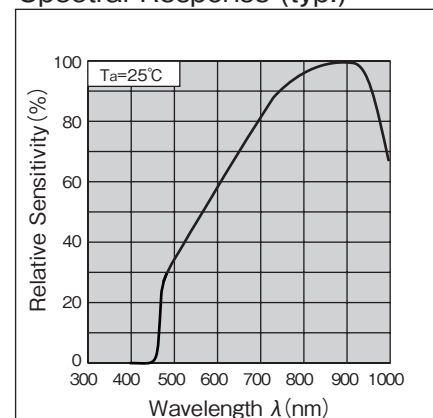
Dark Current vs. Ambient Temperature (typ.)



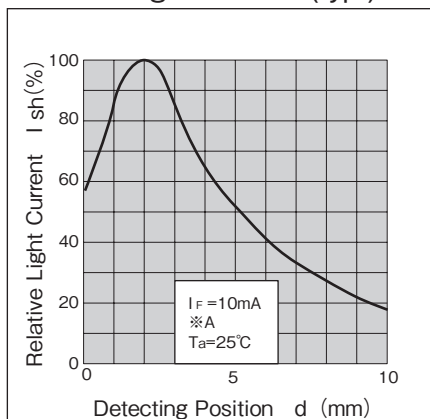
Spectral Wavelength (typ.)



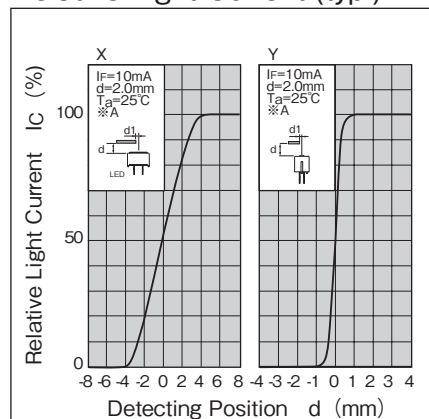
Spectral Response (typ.)



Detecting Position vs. Relative Light Current (typ.)



Detecting Position vs. Relative Light Current (typ.)



※A 90% Reflective Paper

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

05.06-1A



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