

Point Spot ・ Red LED Type

Feature

- ## Application

- Bar-code Reader.
- Paper edge detection.
- Mark sensor of OMR and OCR.

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

Item		Symbol	Rating	Units
Emitter	Forward Current	I_F	30	mA
	Reverse Voltage	V_R	5	V
	Power Dissipation	P	75	mW
Detector	Collector-Emitter Voltage	V_{CE0}	20	V
	Emitter-Collector Voltage	V_{EC0}	5	V
	Collector Current	I_C	20	mA
	Power Dissipation	P _C	75	mW
Operating Temperature		T _{opr}	-10 ~ +65	°C
Storage Temperature		T _{stg}	-20 ~ +75	°C
Soldering Temperature* 1		T _{sol}	260	°C

Technical drawing of the KR1226 LED package showing dimensions and pinout.

Dimensions:

- Top View: Total width 7, mounting hole diameter (4), package width (3).
- Side View: Total height 11.5, mounting hole diameter 2.09, base width 4.0.5, base hole diameter (1.8).
- Bottom View: Pin pitch 2.9±0.1, pin width 4.07±0.1, 3.9±0.1, pin diameter 2-φ0.8⁺⁰_{-0.1}, mounting hole diameter 4.0±0.1.

Pinout:

- ① Collector
- ② Emitter
- ③ Anode
- ④ Cathode

Other Features:

- Plastic lens
- LED Mark
- Base width 4.0.5
- Base hole diameter (5.3)

Legend:

- ⊕ Red type
- ⊖

Notes:

- ※ General tolerance unless otherwise noted
- less than 5.0 ±0.2
- 5.0~15.0 ±0.3
- 15.0 over ±0.5
- ※ () value means for reference only

- ※ 1. Soldering condition 5sec. At 1mm over from body.
- ※ 2. 90% Reflective paper d=2.7mm
- ※ 3. No Object, in Dark

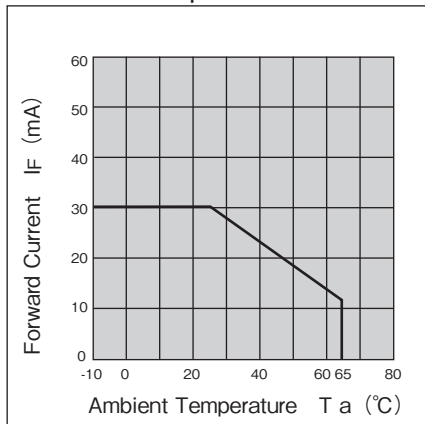
Electro-Optical Characteristics [Ta=25°C Unless otherwise noted]

Item			Symbol	Condition	min.	typ.	max.	Units
Emitter	Forward Voltage		V_F	$I_F=20\text{mA}$	—	1.8	2.2	V
	Reverse Current		I_R	$V_R=5\text{V}$	—	—	10	μA
	Peak Wavelength		λ_p	$I_F=20\text{mA}$	—	660	—	nm
Detector	Dark Current		I_{CEO}	$V_{CE}=20\text{V}$, 0 lux	—	1	200	nA
Coupled	Light Current※2		I_C	$V_{CE}=5\text{V}$, $I_F=20\text{mA}$	50	100	—	μA
	Leak Current※3		I_{LEAK}	$V_{CE}=5\text{V}$, $I_F=20\text{mA}$	—	—	10	μA
	Response Time	Rise	tr	$V_{CC}=5\text{V}$, $I_C=25\mu\text{A}$, $R_L=1\text{k}\Omega$, d=2.7mm	—	110	—	μsec
		Fall	tf		—	210	—	μsec

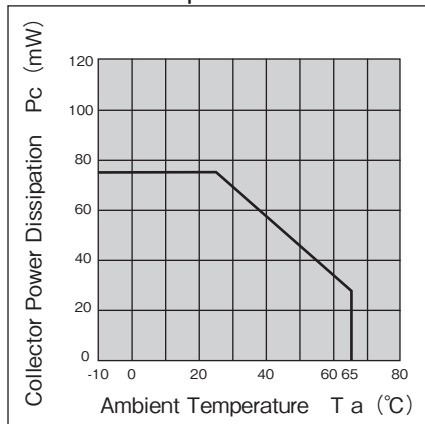
KR1226

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

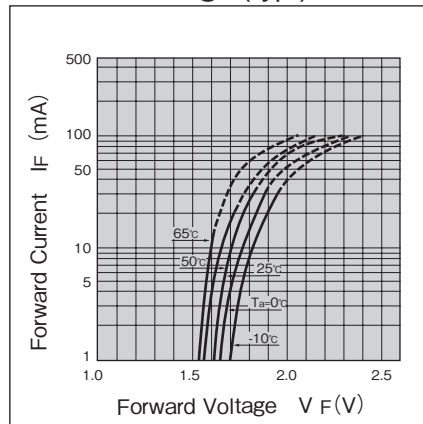
Forward Current vs. Ambient Temperature



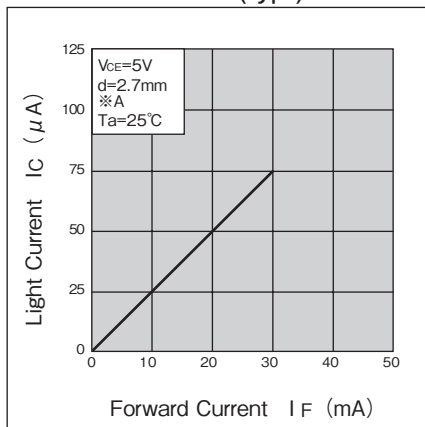
Collector Power Dissipation vs. Ambient Temperature



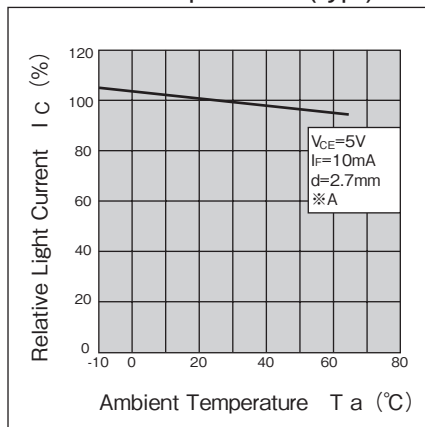
Forward Current vs. Forward Voltage (typ.)



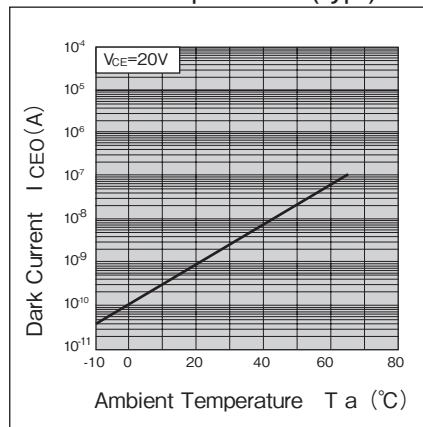
Light Current vs. Forward Current (typ.)



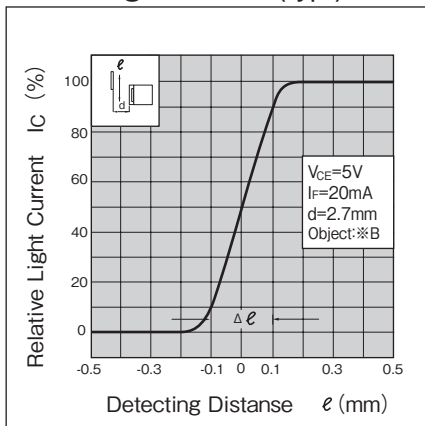
Relative Light Current vs. Ambient Temperature (typ.)



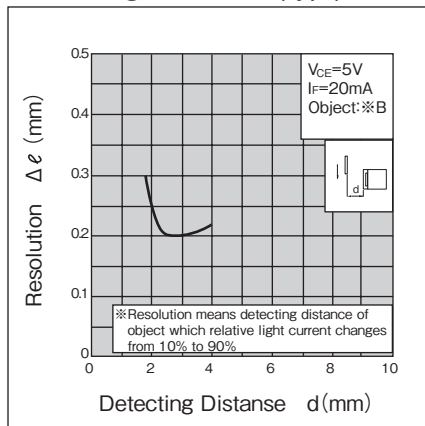
Dark Current vs. Ambient Temperature (typ.)



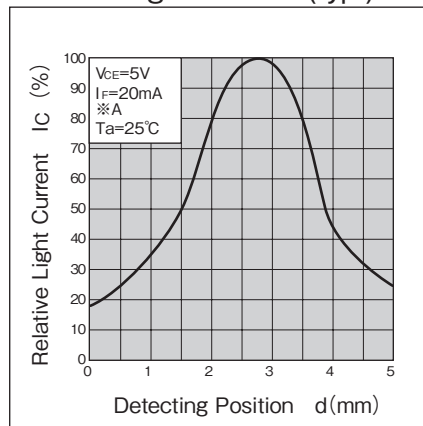
Response At Edge vs. Detecting Distance (typ.)



Resolution vs. Detecting Distance (typ.)



Detecting Position vs. Relative Light Current (typ.)



※A 90% Reflective Paper
※B Al Evaporation Mirror

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

04.09-1A

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