Photointerrupter(Transmissive)

KODENSHI

KPI-511

DESCRIPTION

The photointerrupter high-performance standard type KPI-511 combines a high-output GaAs IRED with a high sensitivity phototransistor.

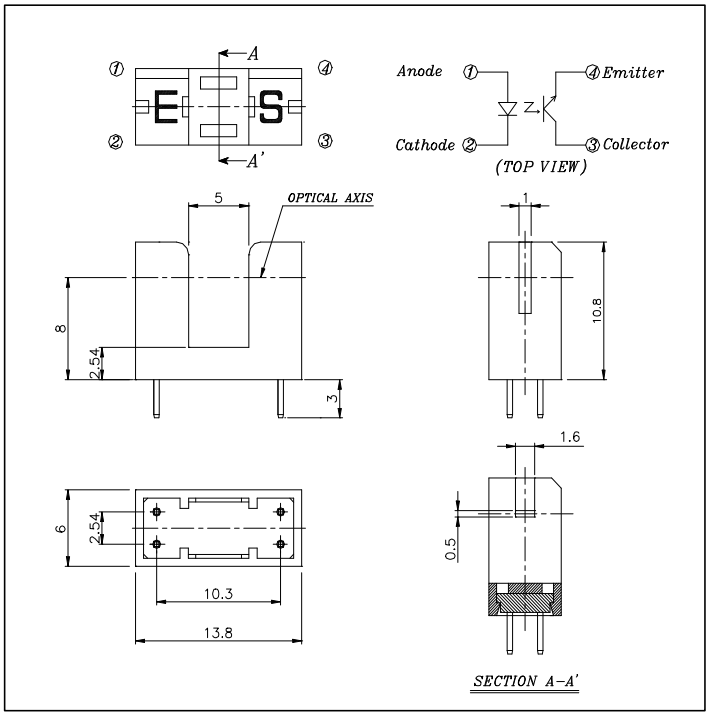
FEATURES

- PWB direct mount type
- GAP : 5.0mm

APPLICATIONS

- Printers
- Copiers
- A T M
- Ticket Vending Machines

DIMENSIONS



ABSOLUTE MAXIMUM RATINGS

(Ta=25℃)

Parameter		Symbol	Rating	Unit
Input	Forward Current	I_F	60	mA
	Pulse Forward Current *1	I_{FP}	1	A
	Reverse Voltage	V_R	5	V
	Power Dissipation	P_D	100	mW
Output	Collector Emitter Voltage	V_{CEO}	30	V
	Emitter Collector Voltage	V_{ECO}	5	V
	Collector Current	I_C	40	mA
	Collector Power Dissipation	P_C	100	mW
Operating Temperature *2		T_{OPR}	-25 ~ +85	℃
Storage Temperature *2		T_{STG}	-40 ~ +85	℃
Soldering Temperature *3		T_{SOL}	260	℃

*1. Pulse width : tw≤100μsec.period : T=10msec

*2. No icebound or dew

*3. For MAX. 5 seconds at the position of 1mm from the package

ELECTRO-OPTICAL CHARACTERISTICS

(Ta=25℃)

Parameter			Symbol	Conditions	MIN.	TYP.	MAX.	Unit
Input	Forward Voltage		V_F	I_F=20mA	-	1.2	1.7	V
	Reverse Current		I_R	V_R=5V	-	-	10	μA
	Capacitance		C_T	f=1KHz	-	25	-	pF
	Peak Wavelength		?P	-	-	940	-	nm
Output	Dark Current		I_{CEO}	V_{CE}=10V, 0 Lux	-	-	10	μA
Coupled	Light Current		I_L	V_{CE}=5V, I_F= 20mA (Non-shading	0.5	-	15	mA
	Collector Emitter Saturation Voltage		$V_{CE(SAT)}$	I_F=20mA, I_C=0.1mA	-	-	0.4	V
	Response Time	Rise Time	tr	V_{CC}=5V, I_C=2mA, R_L=100Ω	-	5	-	μs
		Fall Time	tf		-	5	-	μs

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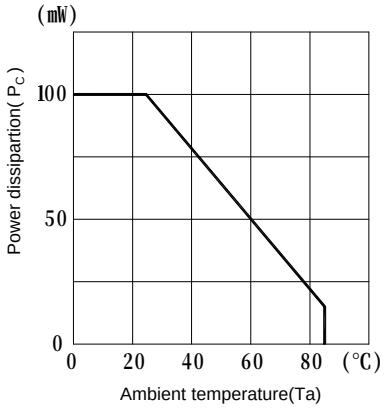
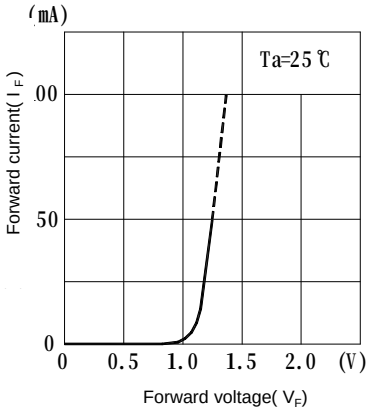
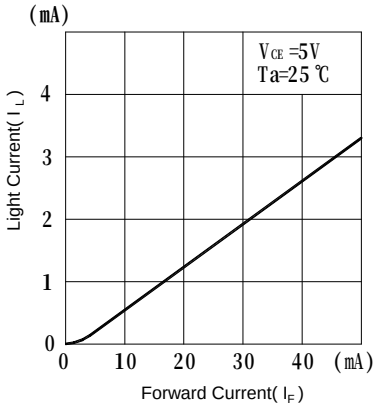
Collector power dissipation Vs. Ambient temparature



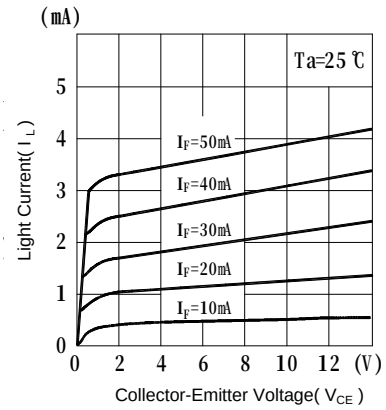
Forward current Vs. Forward voltage



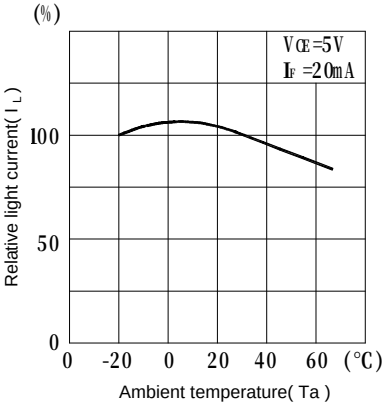
Light current Vs. Forward current



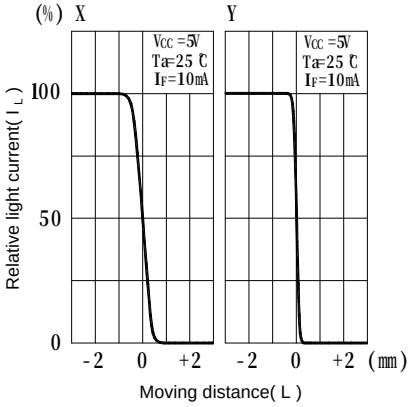
Light current Vs. Collentor-Emitter voltage



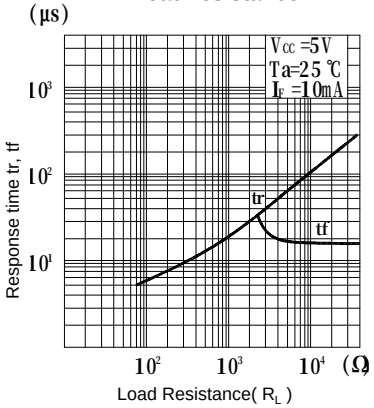
Relative light current Vs. Ambient temperature



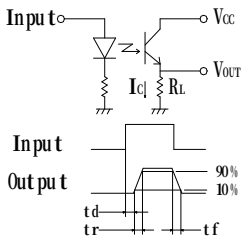
Dark current Vs. Ambient temperature



Switching time Vs. Load resistance



Response time measurement circuit



Method of measuring position detection characteristic