

# KOD-1082

**Features**

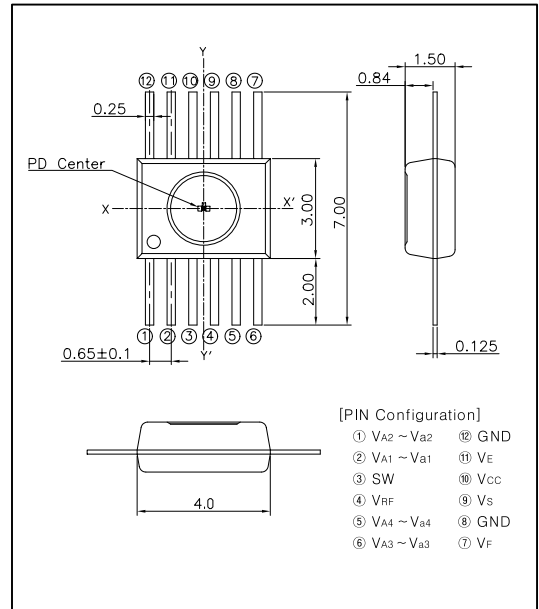
- Full CMOS Seven Channel, Integrated High Speed Photodiodes and Current to Voltage Transimpedance Amplifiers
- Four High Speed( 55/35MHz typ) Data Channels (A1/a1 ~ A4/a4)
- Two Low Speed Tracking Channels (E, F)
- High PD Sensitivity Optimized for DVD/CD Applications with Red Laser Diode (  $\lambda = 650\text{nm}$  ) and for CD Applications with IR Laser Diodes (  $\lambda = 780\text{nm}$  )

**Applications**

- CD-R/CD-RW Pick-up
- DVD-ROM / CD-ROM Drivers

**DIMENSIONS**

(Unit : mm)



**Absolute Maximum Ratings**

[Ta = 25 °C ]

Description	Symbol	Ratings	Condition
Power Supply Voltage	V <sub>cc</sub>	4.5 ~ 5.5 V	-
Output Voltage	V <sub>o</sub>	V <sub>cc</sub> + 0.5 V	-
Soldering Temperature	T <sub>sol</sub>	260°C	-
Storage Temperature	T <sub>stg</sub>	- 30 ~ + 85 °C	-

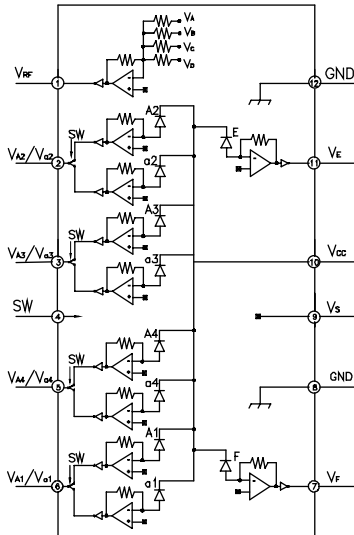
**Electro-Optical Characteristics**

[Ta = 25 °C ]

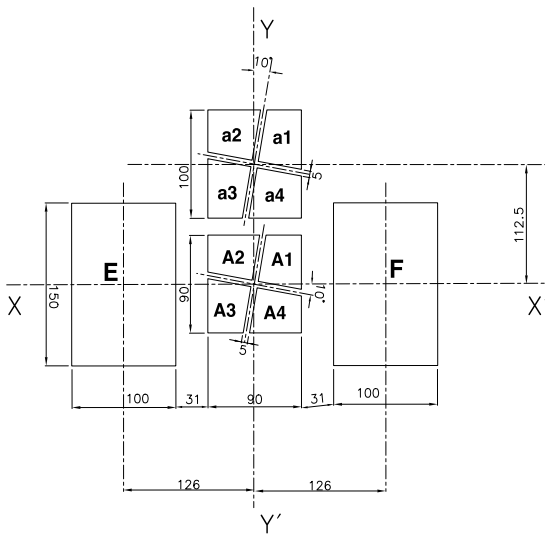
Parameter	Symbol	Characteristics	Condition
Output Offset Voltage	V <sub>off</sub>	±15mV	V <sub>A1/a1</sub> ~ V <sub>A4/a4</sub>
Output Offset Voltage Difference	ΔV <sub>off</sub>	±25mV	V <sub>A1/a1</sub> ~ V <sub>A4/a4</sub>
Sensitivity	V <sub>o</sub>	MIN 25.6 mV/μW	λ=650nm , V <sub>a1</sub> ~ V <sub>a4</sub>
		MIN 32.0 mV/μW	λ=780nm , V <sub>A1</sub> ~ V <sub>A4</sub>
Cutoff Frequency	f <sub>c</sub>	TYP 55 MHz	λ=650nm , V <sub>a1</sub> ~ V <sub>a4</sub>
		TYP 35 MHz	λ=780nm , V <sub>A1</sub> ~ V <sub>A4</sub>
Maximum Output Voltage	V <sub>omax</sub>	MIN 3.9V	V <sub>A1/a1</sub> ~ V <sub>A4/a4</sub>
Output Noise Level	V <sub>n</sub>	TYP -81dBm	V <sub>A1/a1</sub> ~ V <sub>A4/a4</sub>
Operating Temperature Range	T <sub>opr</sub>	-20 ~ +75°C	-

**KOD-1082**

**Block Diagram**



**Detecting Pattern of Photo Diode**



Unit:  $\mu\text{m}$