

Photo diode IC

KODENSHI

KOD-1081

Features

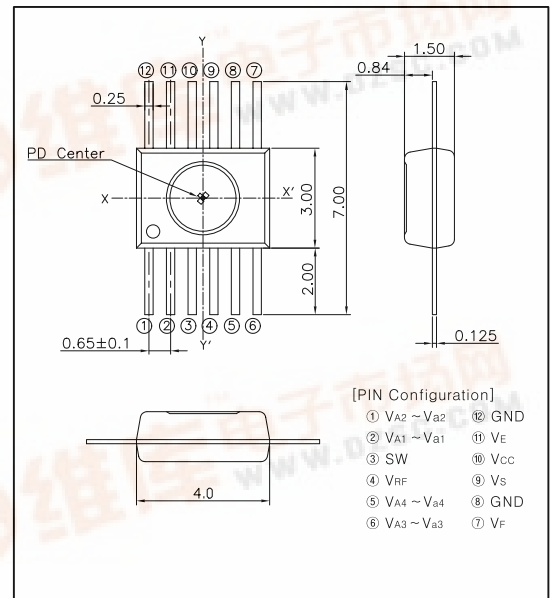
- Full CMOS Seven Channel, Integrated High Speed Photodiodes and Current to Voltage Transimpedance Amplifiers
- Four High Speed(55/35MHz typ) Data Channels (A1/a1 ~ A4/a4)
- Two Low Speed Tracking Channels (E, F)
- High PD Sensitivity Optimized for DVD/CD Applications with Red Laser Diode ($\lambda=650\text{nm}$)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

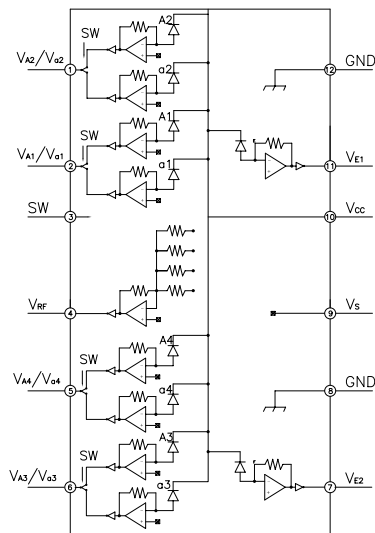
Description	Symbol	Ratings	Condition
Power Supply Voltage	V _{cc}	4.5 ~ 5.5 V	-
Output Voltage	V _o	V _{cc} + 0.5 V	-
Soldering Temperature	T _{sol}	260 °C	-
Storage Temperature	T _{stg}	- 30 ~ + 85 °C	-

Electro-Optical Characteristics

[Ta = 25°C]

Parameter	Symbol	Characteristics	Condition
Output Offset Voltage	V _{off}	±15mV	V _{A1/a1} ~ V _{A4/a4}
Output Offset Voltage Difference	△V _{off}	±25mV	V _{A1/a1} ~ V _{A4/a4}
Sensitivity	V _o	MIN 23.0 mV/μW	λ=650nm, V _{A1} ~ V _{A4}
		MIN 29.0 mV/μW	λ=780nm, V _{A1} ~ V _{A4}
Cutoff Frequency	f _c	TYP 55 MHz	λ=650nm, V _{A1} ~ V _{A4}
		TYP 35 MHz	λ=780nm, V _{A1} ~ V _{A4}
Maximum Output Voltage	V _{omax}	MIN 3.8V	V _{A1/a1} ~ V _{A4/a4}
Output Noise Level	V _n	TYP -81dBm	V _{A1/a1} ~ V _{A4/a4}
Operating Temperature Range	T _{opr}	-20 ~ +75 °C	-

Block Diagram



Detecting Pattern of Photo Diode

