

Photodiode IC

KODENSHI

KOD-2410

KOD - 2410 is a photo IC developed as a detector for optical pick ups of compact discs. The output impedance is low and stable due to the I - V amplifier. The detectors of tracking are set on both sides of 4 segmented photodiodes.

FEATURES

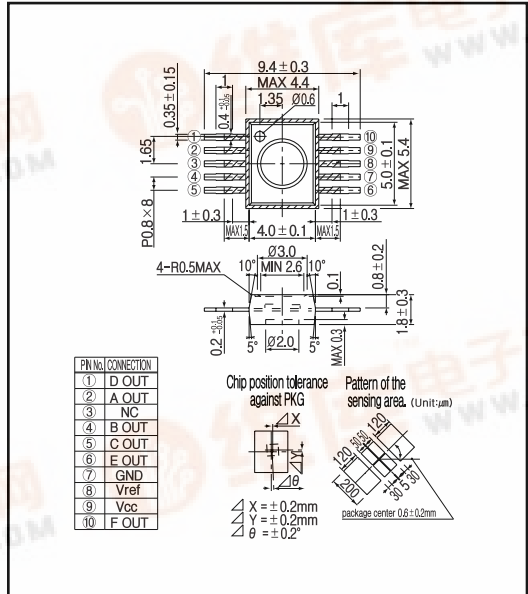
- Built - in I - V amplifier (current - to - voltage converter)
- Laser beam focusing/positioning is best performed by 4 segmented photodiodes
- Compact, clear mold package

APPLICATIONS

- Signal detection, focusing and positioning for CD and other optical disks.

DIMENSIONS

(Unit : mm)



MAXIMUM RATINGS

(Ta=25)

Item	Symbol	Rating	Unit
Supply voltage	Vcc	6	V
Power dissipation	Po	100	mW
Operating temp.	Topr.	- 20 +80	
Storage temp.	Tstg.	- 30 +85	

ELECTRO-OPTICAL CHARACTERISTICS

(Vc=3V,Vref=1.5V,R=10k ,C=10k ,Ta=25)

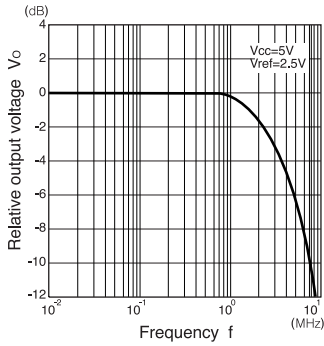
Item	Symbol	Conditions	Min.	Typ.	Max.	Unit.
Current consumption	Vcc	(shading)		3	3.8	mA
Output offset voltage (A F)	Voff	(shading)	- 15	0	15	mV
Output offset voltage difference (A F)	Voff	(A+B) - (C+D) (shading)	- 15	0	15	mV
		(A+D) - (B+C) (shading)	- 15	0	15	mV
		(A+C) - (B+D) (shading)	- 15	0	15	mV
		E - F (shading)	- 10	0	10	mV
		Output voltage(A D)	Vo	Po=10μW =780nm	290	370
Output voltage(E,F)	Vo	Po=10μW =780nm	610	770	930	mV
Maximum output voltage(A D)	Vomax	Po=100μW =780nm	2.0	2.2		V
Maximum output voltage(E,F)	Vomax	Po=100μW =780nm	2.5	2.9		V
Cutoff frequency(A D)	fc	100kHz- 3dB	2.5	3.0		MHz
Cutoff frequency(E,F)	fc	10kHz- 3dB	100	400		KHz



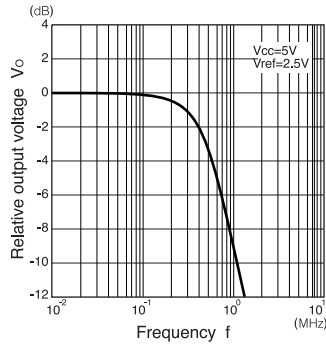
Photo diode IC

KOD-2410

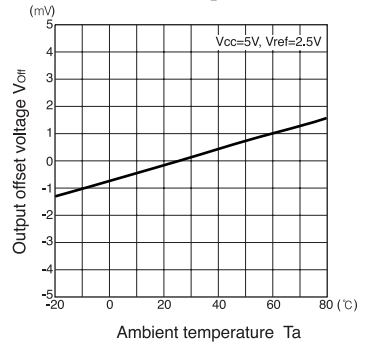
Focus



Tracking



Output offset voltage Vs. Ambient temperature



Relative output voltage Vs. Ambient temperature

