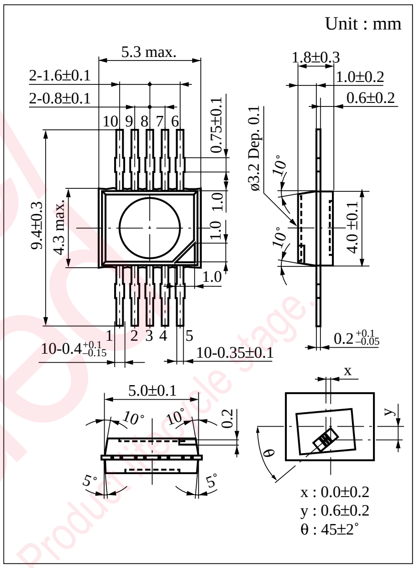
PNA4211F

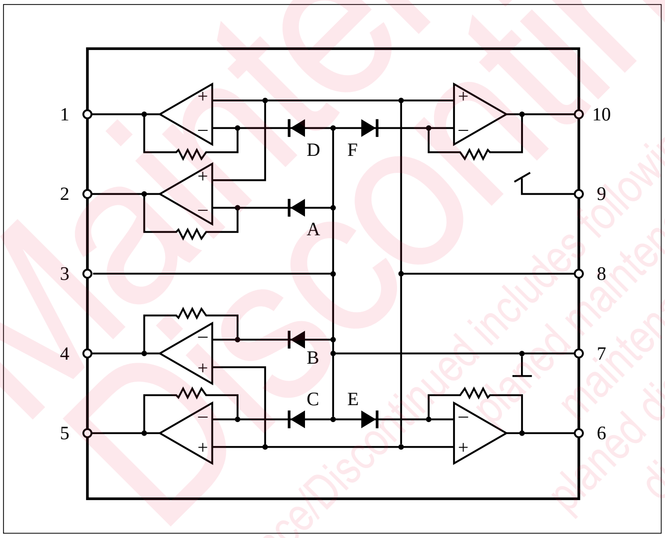
Bipolar Integrated Circuit with Photodetection Function



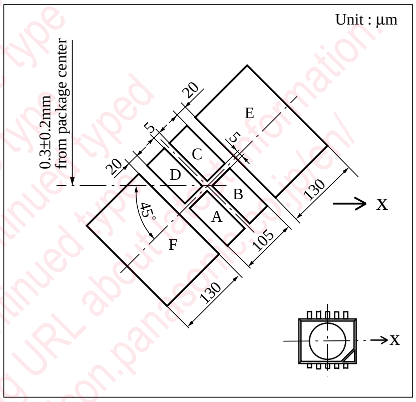
Features

- Built-in amplifier circuit
- Supports CD and 4-speed CD-ROM

Block Diagram



Dimensions of detection area



Pin Description

Pin No.	Function	Pin No.	Function
1	D Out	6	E Out
2	A Out	7	COMMON GND
3	COMMON GND	8	V_C
4	B Out	9	V_{CC}
5	C Out	10	F Out

■ Absolute Maximum Ratings (Ta = 25˚C)

Parameter	Symbol	Ratings	Unit
Power supply voltage	V_{CC}	+6	V
Power dissipation	P_D	115	mW
Operating ambient temperature	T_{opr}	–20 to +70	˚C
Storage temperature	T_{stg}	–30 to +95	˚C

■ Electro-Optical Characteristics (V_{CC} = 2.5V, V_{ref} = 0V, V_{EE} = – 2.5V, R_L = 10kΩ, Ta = 25˚C ± 3˚C)

Parameter	Symbol	Conditions	min	typ	max	Unit
Current of all circuits	I_{CC}			2.2	4.0	mA
Output voltage	V_O	P_l = 10μW, λ = 780nm, A to D		300		mV
		P_l = 10μW, λ = 780nm, E, F		660		
Output offset voltage	$V_{O(offset)}$		–20	0	+20	mV
Output offset voltage difference	$\Delta V_{O(offset)}$	(A + C) – (B + D)	–20	0	+20	mV
		E – F	–20	0	+20	
Frequency characteristics	f_c	λ = 780nm, –3dB, A to D		8		MHz

Note 1) The reference voltage for the output voltage and output offset voltage is V_{ref} (8-pin voltage).

Note 2) The output voltage does not include the output offset voltage.

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