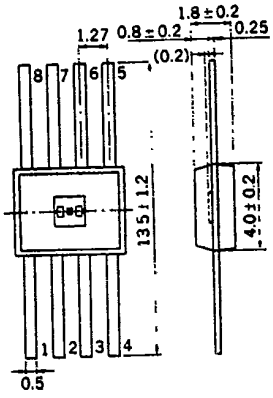
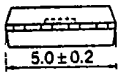
PHOTO DIODE
PH312

SILICON EPITAXIAL PLANAR PIN PHOTO DIODE
DETECTOR for DAD, VD

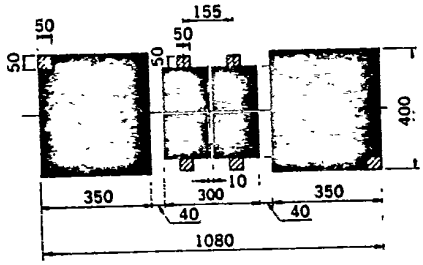
PACKAGE DIMENSIONS
(Unit : mm)





1. Anode E
2. Common Cathode
3. Anode D
4. Anode C
5. Anode F
6. Common Cathode
7. Anode B
8. Anode A

CHIP PATTERN
(Unit : μm)



■ Detecting area
▨ Bonding pad

FEATURES

- Small clear mold package.
- Easy optical alignment because of accurate chip location.
- High Sensitivity. S = 0.52 A/W TYP. @ λ = 780 nm
- High element resistance.

APPLICATIONS

Optical head for video and audio disk.
Optical detector of tracking and focus signal.

ABSOLUTE MAXIMUM RATINGS (T_a = 25 °C)

Reverse Voltage	V_R	20	V
Reverse Current	I_R	10	mA
Forward Current	I_F	10	mA
Power Dissipation	P	20	mW
Operating Temperature	T_{opt}	−20 to +80	°C
Storage Temperature	T_{stg}	−40 to +100	°C

PH312

T-41-53

ELECTRO-OPTICAL CHARACTERISTICS (T_a = 25 °C)

CHARACTERISTIC	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITIONS
Dark Current	I_D			4	nA	V_R = 15 V
Sensitivity	S	0.40	0.52		A/W	V_R = 15 V, λ = 780 nm
Rise Time	t_r		1		ns	V_R = 15 V, R_L = 1 kΩ
Fall Time	t_f		1		ns	V_R = 15 V, R_L = 1 kΩ
Terminal Capacitance	C_1*		2.3		pF	V_R = 15 V, f = 1.0 MHz
Terminal Capacitance	C_2**		6.5		pF	V_R = 15 V, f = 1.0 MHz
Resistance between Each Element	R	1.0			MΩ	

*: A to D Each element capacitance against cathode.
**: E, F Each element capacitance against cathode.

TYPICAL CHARACTERISTICS (T_a = 25 °C)