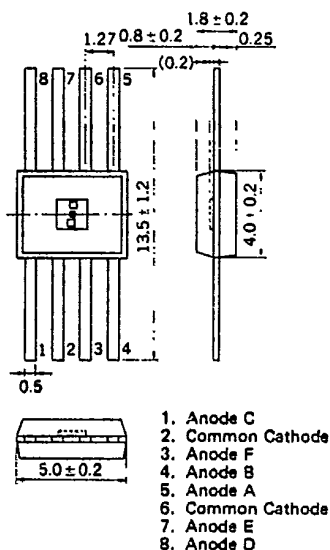


PHOTO DIODE PH311

SILICON EPITAXIAL PLANAR PIN PHOTO DIODE DETECTOR for DAD, VD

PACKAGE DIMENSIONS (Unit : mm)



FEATURES

- Small clear mold package.
- Easy optical alignment because of accurate chip location.
- High Sensitivity. $S = 0.3 \text{ A/W TYP. @ } \lambda = 780 \text{ nm}$
- High element resistance. $R \geq 10 \text{ M}\Omega$

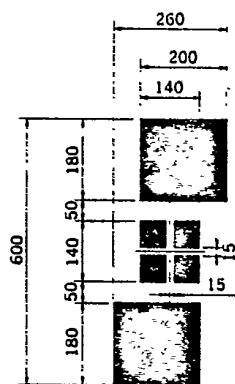
APPLICATIONS

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

ABSOLUTE MAXIMUM RATINGS ($T_a = 25^\circ\text{C}$)

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	$^\circ\text{C}$
Storage Temperature	T_{stg}	-40 to +100	$^\circ\text{C}$

CHIP PATTERN (Unit : μm)



PH311

T-41-53

ELECTRO-OPTICAL CHARACTERISTICS ($T_a = 25^\circ\text{C}$)

CHARACTERISTIC	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITIONS
Dark Current	I_D			4	nA	$V_R = 15\text{ V}$
Sensitivity	S	0.2	0.3		A/W	$V_R = 15\text{ V}, \lambda = 780\text{ nm}$
Rise Time	t_r		1		ns	$V_R = 15\text{ V}, R_L = 1\text{ k}\Omega$
Fall Time	t_f		1		ns	$V_R = 15\text{ V}, R_L = 1\text{ k}\Omega$
Terminal Capacitance	C_1^*		2.0		pF	$V_R = 15\text{ V}, f = 1.0\text{ MHz}$
Terminal Capacitance	C_2^{**}		5.6		pF	$V_R = 15\text{ V}, f = 1.0\text{ MHz}$
Resistance between Each Element	R	10			M Ω	

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

TYPICAL CHARACTERISTICS ($T_a = 25^\circ\text{C}$)

