

MITSUBISHI PHOTO DIODES

PD7XX7 SERIES

InGaAs PIN PHOTO DIODES

PD7087, PD708C7, PD7937, PD793D7

DESCRIPTION

PD7XX7 Series are InGaAs pin photodiodes which has a sensitive area of $\phi 40\text{mm}$. PD7XX7 is suitable for receiving the light having a wavelength band of 1000 to 1600nm. This photodiode features high-speed response and a high quantum efficiency, and is suitable for the light receiving elements for optical fiber communication systems.

Feature

- $\phi 40\text{mm}$ active diameter
- 1000~1600nm wavelength band
- Small dark current
- High speed response
- High quantum efficiency
- Ball lens cap(PD708C7)

APPLICATION

Receiver for optical communication system

ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter	Conditions	Ratings	Unit
Vr	Reverse voltage	-	20	V
Ir	Reverse current	-	500	mA
If	Forward current	-	2	mA
Tc	Case temperature	-	-40 ~ +85	°C
Tstg	Storage temperature	-	-40 ~ +100	°C

ELECTRICAL / OPTICAL CHARACTERISTICS (Tc=25°C)

Symbol	Parameter	Test conditions	Limits			Unit
			Min.	Typ.	Max.	
Ct	Capacitance	Vr=5V, f=1MHz	-	0.8 ^{*1}	-	pF
Id	Dark current	Vr=5V	-	0.05	1	nA
R	Responsivity	Vr=5V, λ =1300nm	0.7	0.90 ^{*2}	-	A/W
fc	Cut-off frequency	Vr=5V, λ =1300nm, RL=50W, -3dB	-	2.5	-	GHz

*1 Applied to PD7937: Ct=0.6pF(typ.), PD793D7: Ct=0.5pF(typ.)

*1 0.85A/W typical fiber coupling sensitivity with GI 50/125 for PD708C7

MITSUBISHI LASER DIODES

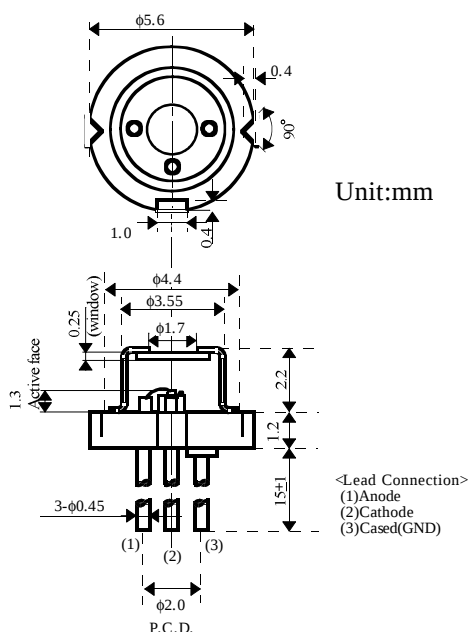
PD7XX7 SERIES

OUTLINE DRAWINGS

PD7087



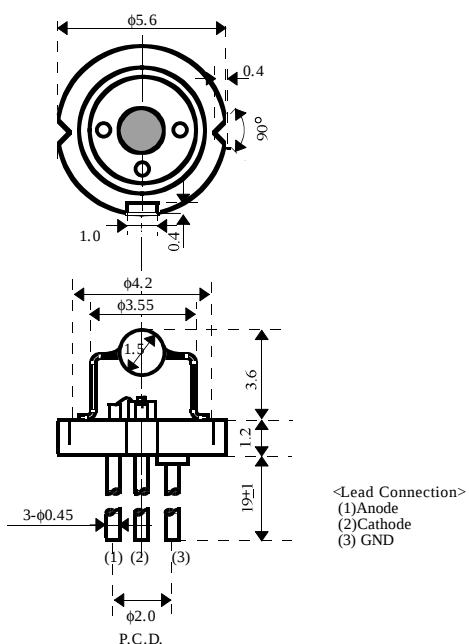
- CD header
- Flat glass cap
- 3 pin



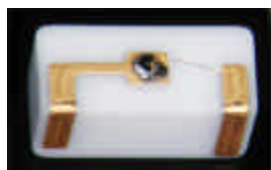
PD708C7



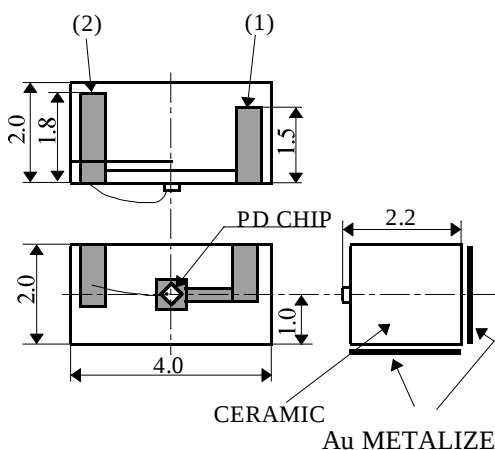
- CD header
- Ball lens
- 3 pin



PD7937



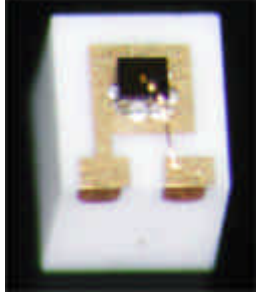
- Alumina submount



PD7XX7 SEIRES

OUTLINE DRAWINGS

PD793D7



 Alumina submount

