

# MITSUBISHI ELECTRIC CORPORATION

SPECIFICATION  -SHEET	DATE:	*	June.13,01'						
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	APPROVED BY:	S.Minamihara							

- 1. TYPE : PD7937-01**  
**2. APPLICATION : OPTICAL COMMUNICATION**  
**3. STRUCTURE :  $\phi 40 \mu\text{m}$  InGaAs PHOTODIODE WITH METALMASK**  
**4. OUTLINE : G480181**  
**5. ABSOLUTE MAXIMUM RATINGS**

No.	PARAMETER	SYMBOL	CONDITION	RATINGS	UNIT
(1)	Reverse Voltage	VR	-	20	V
(2)	Reverse Current	IR	-	0.5	mA
(3)	Forward Current	IF	-	2	mA
(4)	Operating Case Temperature	Top	-	-40 ~ +85	°C
(5)	Storage Temperature	Tstg	-	-40 ~ +100	°C

## 6. OPTICAL AND ELECTRICAL CHARACTERISTICS

No.	PARAMETER	SYMBOL	CONDITION (Tc=25 °C )	RATINGS			UNIT
				MIN.	TYP.	MAX.	
(1)	Responsivity	R	Vr=5V, $\lambda=1300\text{nm}$	0.75	0.85	-	A/W
(2)	Dark Current	ID	Vr=5V	-	0.1	2.0	nA
(3)	Capacitance	Ct	Vr=5V, f=1MHz	-	0.6	-	pF
(4)	Cut-off Frequency	fc	Vr=5V, $\lambda=1300\text{nm}$ , -3dB, RL=50 $\Omega$	-	2.5	-	GHz

## **7. Safety precautions relating to handling of optical semiconductor device**

### **General:**

Although the manufacturer is always striving to improve the reliability of its products, problems and errors may occur with semiconductor products. Hence, it is required so that the user's products are designed with full regard to safety by incorporating the redundancy, fire prevention, error prevention so that any problems or error with a semiconductor product does not cause any accidents resulting in injury or death, fire, or environmental damage. The following requirements must be strictly observed.

### **Warning!**

#### **Handling of the product**

This product uses GaAs (gallium arsenate). In normal conditions this product is not toxic. However, if it is powdered or vaporized, its powder or vapor is dangerous to humans. Never attempt to crush, grind, bake or chemically treat this product. Do not put this product into your mouth or swallow it.

#### **1. Discarding the product**

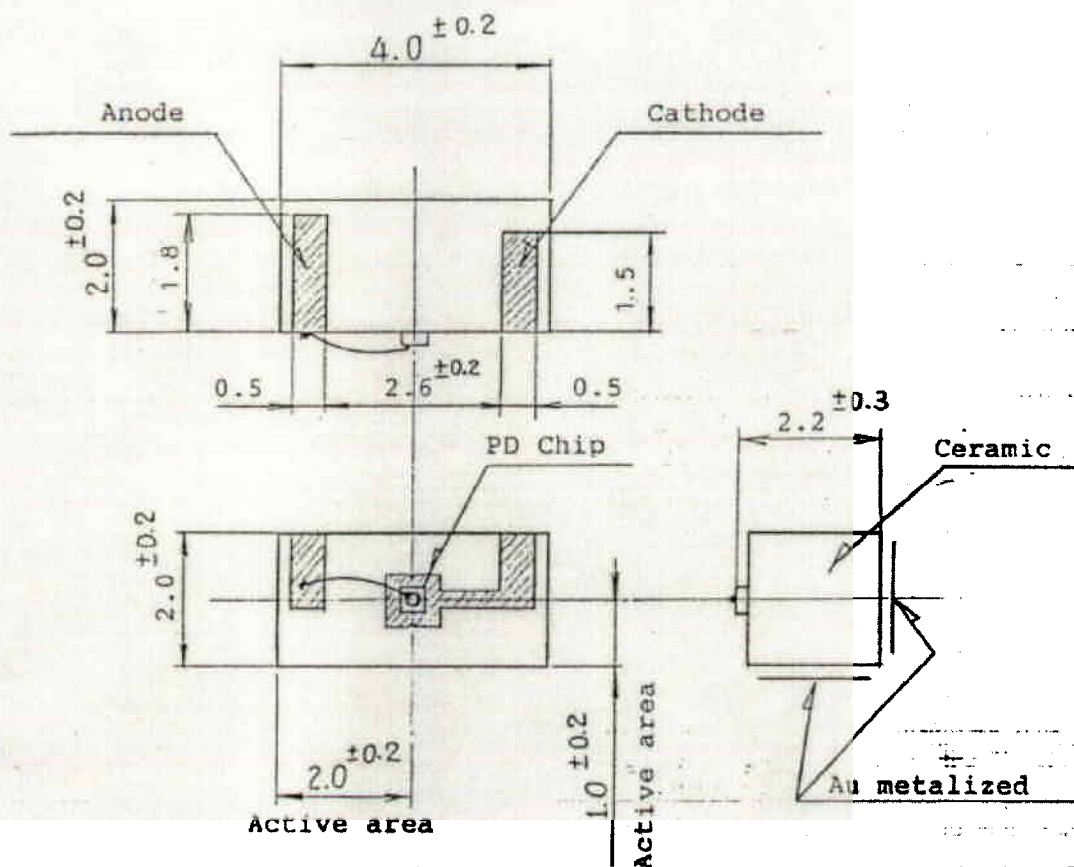
This product uses GaAs (gallium arsenate). It should be discarded as a specially controlled industrial waste, it should be separated from general industrial and household wastes, according to the "Law of Wastes and Cleaning".

### **Caution!**

#### **1. High temperature**

During operation the product may become hot. Therefore do not touch it directly during operation. The product will remain hot even after the power is turned off, so wait until it cools before you touch it. Otherwise burns may be caused. Never place any inflammable substance which may cause a fire near the product.

記 録



OUTLINE DRAWINGS ( dimensions in mm )

PD7935 PD8932

PD7936 PD7938

合生2 /  
品保- /  
波子 /  
波子 /

改定CHANGE

A.

常用  
保留  
一時  
商用

第3角法 JIS ANGLE PROJECTION

MITSUBISHI ELECTRIC CORPORATION

DIM IN mm

作 図 確 認 設 計 検 査  
DRAWN CHECKED DESIGNED APPROVED

尺 寸 10/ NTS

DATE 88.3.3

吉田 和 吉田 仁 田

外形図 ( 93 pkg )

G480181