

1. Scope :

This specification applies to InGaAs PIN photodiode chips.
Device No. ED-MPD50VB

2. Structure :

- 2-1. Type : PIN diode.
2-2. Electrodes :
Top side (Anode) : Au alloy.
Back side (Cathode) : Au alloy.

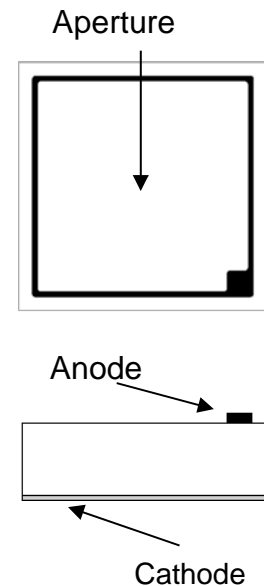
3. Size :

- 3-1. Chip size : 46.5 mils × 46.5 mils (1.18 mm × 1.18 mm).
3-2. Chip thickness : 11.8 ± 1 mils (0.30 ± 0.025 mm).
3-3. Aperture size : 39.4 mils × 39.4 mils (1.00 mm × 1.00 mm).
3-4. Bonding pad (Anode) : 3.9 × 3.9 mils (0.100 mm × 0.100 mm).
3-5. Pattern drawing : Refer to the attached drawing.

4. Electro-optical characteristics (Ta = 25 °C)

| Parameter | Symbol | Condition | Min. | Typ. | Max. | Unit |
|-----------------------------|-------------|--------------------------------|------|------|------|------|
| * Reverse Dark Current | I_D | $V_R=5V$ $E_e=0mW/cm^2$ | - | - | 5 | nA |
| * Reverse Breakdown Voltage | $V_{(BR)R}$ | $I_R=1\mu A$ $E_e=0mW/cm^2$ | 30 | - | | V |
| * Forward Voltage | V_F | $I_F=3mA$ $E_e=0mW/cm^2$ | - | - | 0.7 | V |
| Capacitance | C_p | $V_R=5V$ $f=1MHz$ | - | - | 60 | pF |
| Responsivity | Resp | $V_R=5V$ Wavelength =1310nm | 0.8 | - | - | A/W |

* Based on 100% probing



5. Typical Electro-Optical Characteristics Curve:

Fig 1. Relative Responsivity vs Wavelength

