

**1. Scope :**

This specification applies to InGaAs PIN photodiode chips.  
Device No. ED-MPD1212VB

**2. Structure :**

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

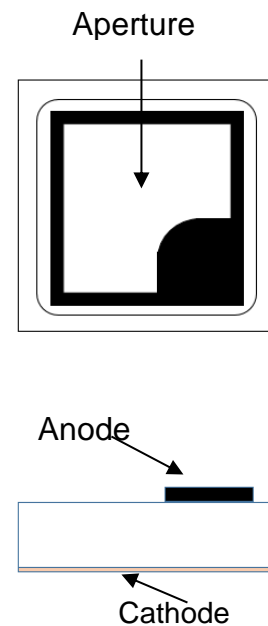
**3. Size :**

- 3-1. Chip size : 12 mils × 12 mils (0.30 mm × 0.30 mm).  
3-2. Chip thickness :  $5.9 \pm 1$  mils ( $0.15 \pm 0.025$  mm).  
3-3. Aperture size : 7.8 mils × 7.8 mils (0.20 mm × 0.20 mm).  
3-4. Bonding pad ( Anode ) : 3.5mil x 3.5mil (0.09 mm x 0.09mm).  
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	$I_D$	$V_R=5V$ $E_e=0mW/cm^2$	-	-	1	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	$C_p$	$V_R=5V$ $f=1MHz$	-	-	5.0	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

