

# TPD-8D12

## GaAs PIN photodiode chip

### FEATURES:

- Optimized for fiber optic application.
- Low dark current and low capacitance.

### ELECTRO-OPTICAL CHARACTERISTICS:

| PARAMETERS        | SYMBOL   | MIN  | TYP | MAX  | UNIT    | TEST CONDITIONS         |
|-------------------|----------|------|-----|------|---------|-------------------------|
| Responsivity      | R        | 0.55 | 0.6 | 0.63 | A/W     | $V_R=5V, \lambda=850nm$ |
| Forward Current   | $I_F$    | 100  |     |      | $\mu A$ | $V_F=1V$                |
| Dark Current      | $I_D$    |      | 0.2 | 1    | nA      | $V_R=5V$                |
| Breakdown Voltage | $V_{BD}$ | 50   | 85  |      | V       | $I_R=10\mu A$           |
| Capacitance       | C        |      | 0.7 | 1.0  | pF      | $V_R=5V, f=1 MHz$       |

Fig. 1 Typical Dark Current and Forward Current

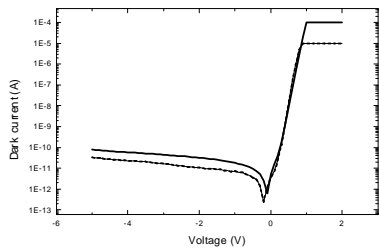


Fig. 2 Typical Photo-Current

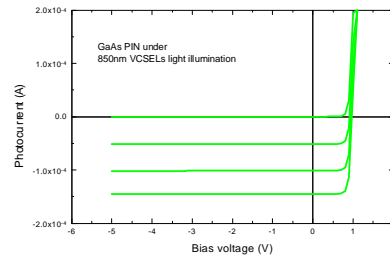


Fig. 3 Typical Breakdown Curve

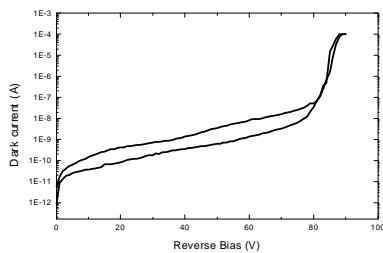
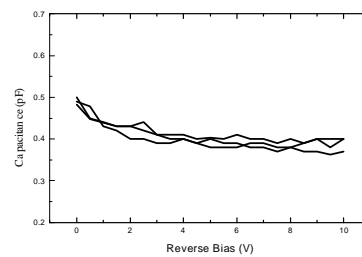


Fig. 4 Typical C-V Curve



### OUTLINE DIAGRAM:

- Chip size is typical 250x250  $\mu m$  square.
- Sensitive area is typical 100  $\mu m$  in diameter.