

# 850PD-GaAs-SI100-v1.00

## 850nm GaAs PIN Photodiode for 1-4 Gbps applications

### ■ Features

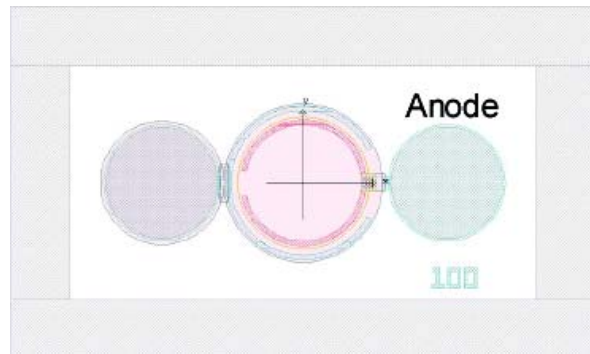
- \* Mesa diode on semi-insulating substrates
- \* Anode/Cathode bonding pads on front side
- \* Low dark current & capacitance with high responsivity
- \* Bandwidths up to 5 GHz
- \* Customer specified configurations available

### ■ Applications

- \* Short reach optical networks
- \* 1 to 4 Gigabit Ethernet, fiber channel
- \* High speed optical switch
- \* Photometry

### ■ Chip Dimension (typical)

- \* Aperture Diameter : 100  $\mu\text{m}$
- \* Bonding Pad Diameter : 100  $\mu\text{m}$
- \* Die Height : 100  $\mu\text{m}$  ~ 120  $\mu\text{m}$
- \* Die Size : 300  $\mu\text{m}$   $\times$  500  $\mu\text{m}$
- \* Substrate : Semi-insulating



### ■ Structure

- \* Planar type: Semi-insulating type PIN diode
- \* Electrodes: Gold alloy for Top side-right (anode) / Top side-left (cathode)

### ■ Electrical and optical characteristics (Ta = 25°C)

No.	Parameter	Condition	Min.	Typical	Max.	Unit
1	Bandwidth	-3V	-	5	-	GHz
2	Wavelength Range	-3V	760	850	860	nm
3	Responsivity @ 850nm	-3V	0.5	0.6	-	A/W
4	Dark Current	-3V	-	0.1	0.5	nA
5	Reverse Breakdown	-20V	-	-	1	$\mu\text{A}$
6	Capacitance	-3V	-	0.35	0.5	pF