

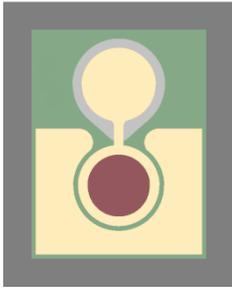
# GCS InGaAs PIN Photodiodes

P/N: Do105\_68um\_P2 (OST)



Known Good Die

## DATASHEET



### Introduction

The DO105\_68um\_P2 product is a front side illuminated InGaAs PIN photodiode that features a cathode planar structure with anode contact on the front side and cathode contact on the backside. This product has large 68um detection window, low dark current and high responsivity, and is designed to meet performance requirements for data rates up to 4Gbps data communication over single-mode optical fiber at 1200nm to 1600nm.

### Key Features

- Planar structure on n+ InP substrate
- Anode Bonding Pad on Front Side, Cathode on backside
- Low Dark Current & Capacitance with High Responsivity
- Bandwidths up to 4GHz
- -40C to 85C operation range
- Customer Specified Configurations Available
- Deliverable in GCS Known Good Die™ with 100% testing and inspection

### Applications

- 1.25G EPON
- Short Reach Optical Networks
- 1 to 4 Gigabit Ethernet, Fiber Channel, CATV

### SPECIFICATIONS (T=25C°)

	Conditions	Min.	Typical	Max.	Unit	Notes
Responsivity	@1310nm	0.8	0.9	-	A/W	
Capacitance	-5 V		0.6	0.75	pF	
Breakdown	-1μA	30	-	-	V	
Dark current	-5V	-	0.1	1	nA	
Bandwidth	-5V	-	4	-	GHz	
Wavelength Range	-5V	910	1310/1550	1650	nm	

### ABSOLUTE MAXIMUM RATING

Parameter	Rating
Operating Temperature	-40C to 85C
Storage Temperature	-40C to 125C
Soldering Temperature	320C / 5 sec

### Global Communication Semiconductors, LLC

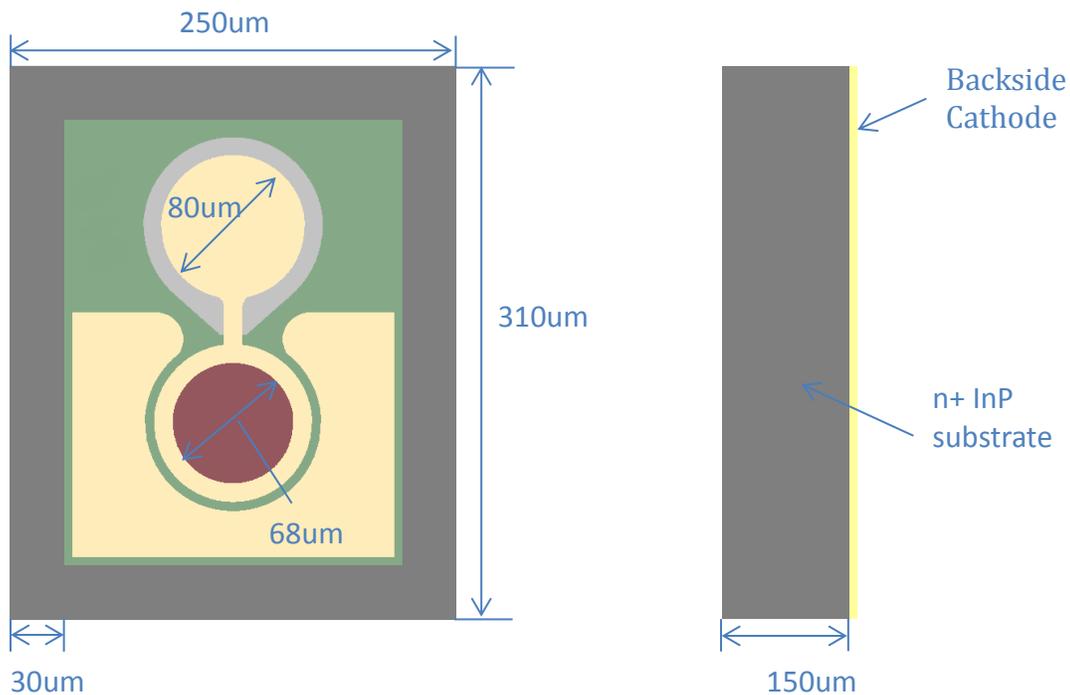
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**DIMENSIONS**

	Conditions	Min.	Typical	Max.	Unit	Notes
Detection Window			68		μm	
Bonding pad diameter			80		μm	for p-pad
Die height		140	150	160	μm	
Die width		300	310	320	μm	
Die length		240	250	260	μm	



**P/N: Do105\_68um\_P2**

Attention: Handle with care, InP is a brittle material. Avoid ESD; the device may be permanently damaged.

**About GCS:**

GCS is a world-class semiconductor manufacturer specializing in advanced photodiode technologies. We provide advanced GaAs and InGaAs photodiodes of varying data rate and application to multiple top tier optical transceiver customers throughout the world. With over 15 years' experience and over 150 million units delivered, our state of the art manufacturing facility has the capacity to produce 2,000 (100mm) wafers per month.

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