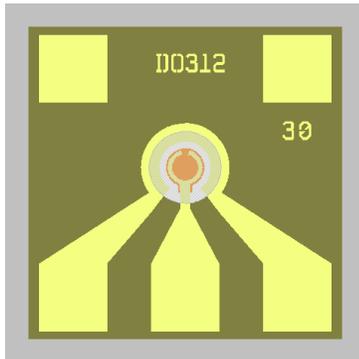


25Gbps 850nm GaAs PIN PD

P/N: D0312_30um_Q8



Known Good Die



Introduction

The D0312_30um_Q8 product is a high performance front side illuminated GaAs PIN photodiode chip that features low capacitance, high responsivity, extremely low dark current with proven excellent reliability. This product has a 30 μ m detection window and is primarily designed for 20-25Gbps short-range optical data communication applications operating at 850nm.

Key Features

- Top-sided 50 Ω coplanar GSG contact pads with SI substrate
- Excellent low dark current and capacitance
- -40C to 85C operation range
- Highly robust 4" GaAs IC wafer fab with fast cycle-time
- Deliverable with 100% testing and inspection
- RoHS compliant

Applications

- 25Gbps AOC (Active Optical Cable) receiver at 850nm
- 25G SFP+

SPECIFICATIONS (T=25C)

	Conditions	Min.	Typical	Max.	Unit	Notes
Bandwidth	-3V	-	21	-	GHz	With 250-500pH external inductance
Wavelength range		760	850	860	nm	
Capacitance	-3 V	-	0.13	0.15	pF	
Responsivity	@850 nm	0.5	-	0.6	A/W	
Dark current	-3V	-	<0.1	0.3	nA	
Reverse Breakdown	-20V	-	-	1	μ A	

ABSOLUTE MAXIMUM RATING

Parameter	Rating
Operating Temperature	-40C to 85C
Storage Temperature	-55C to 125C
Forward Current	10mA

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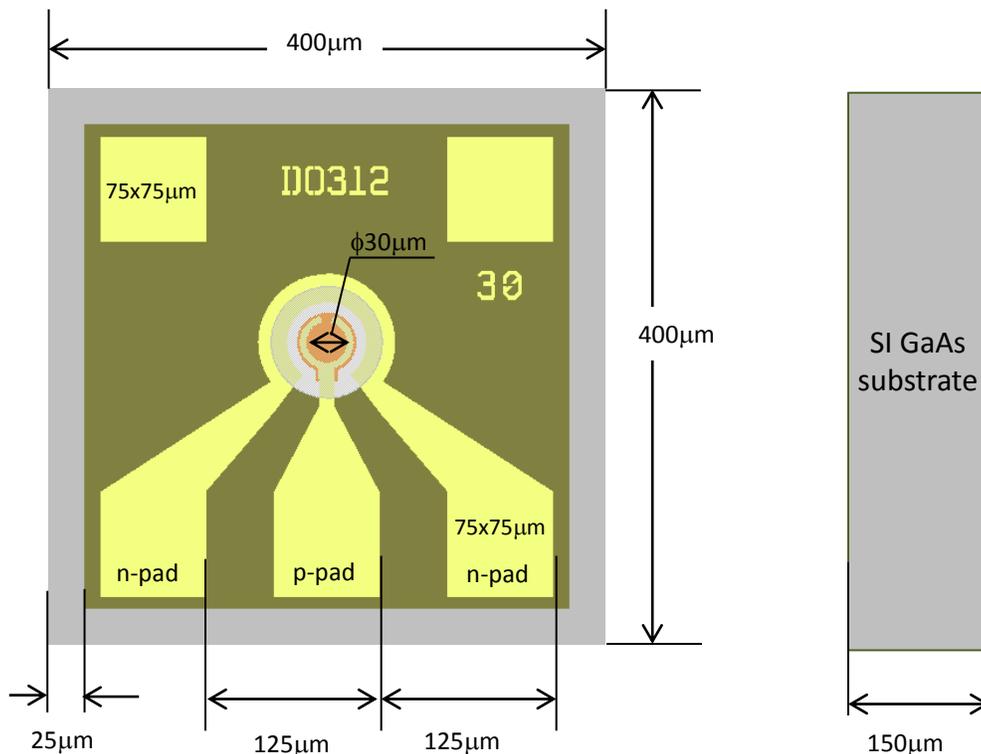
23155 Kashiwa Court, Torrance, CA 90505

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www.gcsincorp.com

DIMENSIONS

	Conditions	Min.	Typical	Max.	Unit	Notes
Detection window		-	30	-	μm	
Bonding pad size		-	75x75	-	μm	for both p- and n- pads
Metal height of bond pad		1.4	1.6	-	μm	Au metal
Die height		140	150	160	μm	
Die width		390	400	410	μm	
Die length		390	400	410	μm	



P/N: Do312_30um_Q8

Attention: 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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