



# 28Gbps 1310nm /1550nm InGaAs PIN PD

P/N: DO190\_16um\_XX \*



Known Good Die

\* Interim part number

## PRELIMINARY DATASHEET



### Introduction

This high performance product is an extra high-speed InGaAs PIN photodiode chip that features a 16 $\mu$ m top-side illuminated detection window and very low capacitance with a bandwidth capable up to 32GHz. This product has an excellent responsivity, low dark current and excellent reliability. It is intended primary to be integrated with a pre-amplifier in a hermetic package, for up to 28Gbps optical receivers operating at 1310nm or 1550nm with 9/125 $\mu$ m single mode fiber.

### Key Features

- Mesa structure with GCS proprietary epi design and process technologies
- 16 $\mu$ m optical detection window
- Extra-high bandwidth up to 32GHz
- Top-sided 50 $\Omega$  coplanar GSG contact pads with SI substrate
- Excellent low dark current and capacitance
- -40C to 85C operation range
- Low cost 4" wafer manufacturing with fast cycle-time
- Deliverable in GCS Known Good Die™ with 100% testing and inspection
- Customized layout dimensions available
- RoHS compliant

### Applications

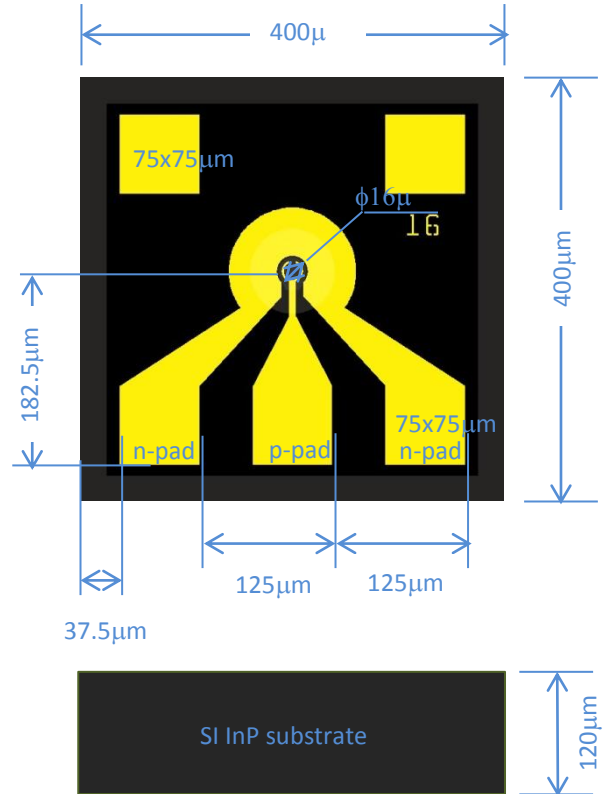
- 28Gbps Fiber Channel
- 100Gbps Ethernet over multiple 25Gbps lanes

### Sample Request Contacts

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### Dimensions



About GCS: GCS has a long history manufacturing and shipping both GaAs and InGaAs based photo diodes since 2000. Our state of art manufacturing facility is located in Torrance, California, and has about 10,000 square feet of fab space with a capability of about 1200 4-inch wafers per month and expandable to 2000 wafers per month. GCS as a world-class semiconductor device manufacturer has been delivering a total of over 30 million photo diodes with various date rates and applications used for optical communications, which have been deployed in field by top tier optical transceiver companies worldwide.