

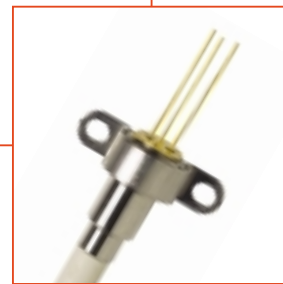
2.5 Gbit/s Receiver PIN-Diode

Application

→ 2.5 Gbit/s Receiver

Features

- Coaxial package with SM-fiber pigtail
- High responsivity
- Bandwidth 2.5 GHz
- Low noise (low dark current)



Technical Specifications

Absolute Maximum Ratings

Stresses in excess of the absolute maximum ratings may cause permanent damage to the device. Exposure to absolute maximum ratings for extended periods can affect the device reliability. The specified performance can be achieved at the operating conditions, listed in this datasheet.

Parameter	Symbol	Conditions	Rating	Unit
Operating case temperature	T_{op}		-20 to +85	°C
Storage temperature	T_{stg}		-40 to +85	°C
Lead soldering temperature			260	°C
Lead soldering time			10	s
PIN reverse voltage	V_{max}		25	V
Diode current	I_{max}		3.5	mA
Radiant input power	P_{max}		8	mW

Electrical/Optical Characteristics

Parameters are specified for $T_c = 25^\circ\text{C}$ unless noted otherwise

Parameter	Conditions	Symbol	Min	Typ.	Max	Unit
Responsivity @ 1550 nm	$U_i = -5\text{ V}$	$R(1550)$				A/W
Type Al0x			0.85 ^a			A/W
Type Al1x			0.7 ^b			A/W
Backreflection, Type Alx0	$\lambda = 1550\text{ nm}$	ORL		27		dB
Backreflection, Type Alx1			40			dB
Bandwidth		Bw	2.5 ^c			GHz
Dark current	$U_i = -5\text{ V}$	I_d		0.06	0.5	nA
Capacitance at leads	package floating	C_{fl}			1.0	pF
Capacitance at leads	package grounded	C_{gr}			1.3	pF

a) R [1310] min. 0.7 A/W

b) R [1310] min. 0.6 A/W

c) Condition: leads to be cut to 3 mm length

Fiber Pigtail Specification

Parameter	Limits	Unit
Fiber length (SM)	1	m
Fiber coating	900	μm
Standard connector	FC/PC	

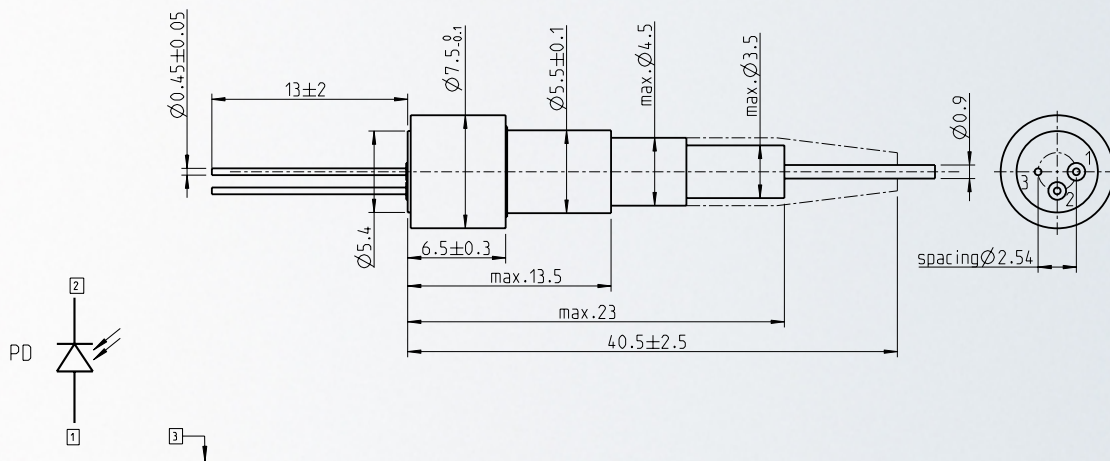
Documentation

- Responsivity @ 1550 nm
- Dark Current @ 25°C
- Backreflection ORL

All dimensions in mm

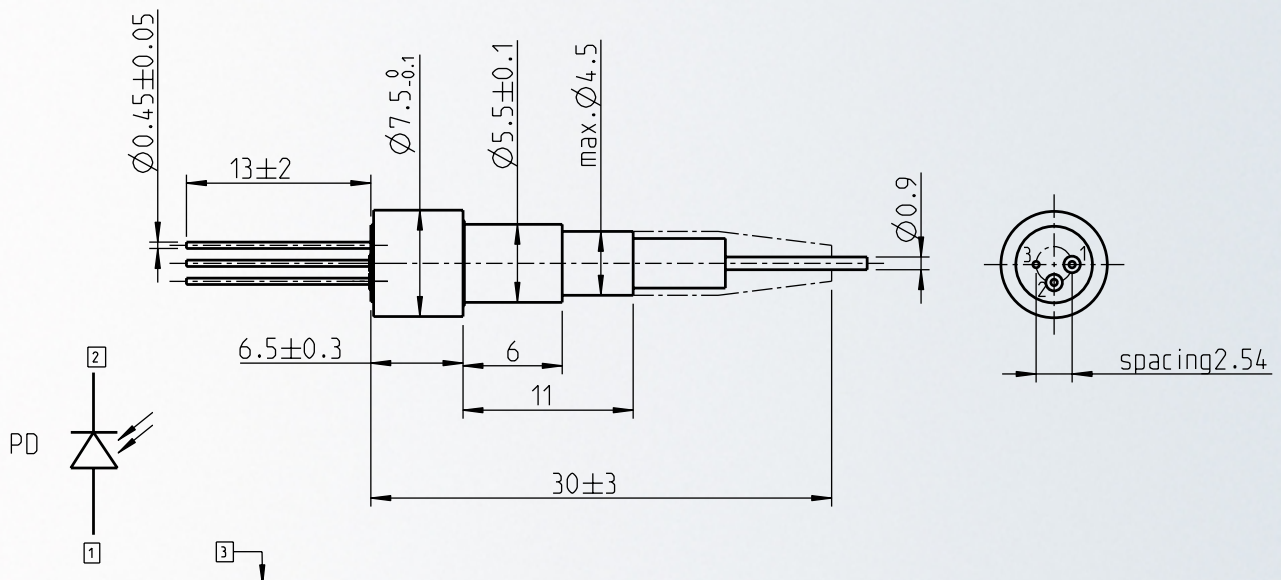
Outline Drawing of Type 0CH (no flange)

Version A (long boot version)



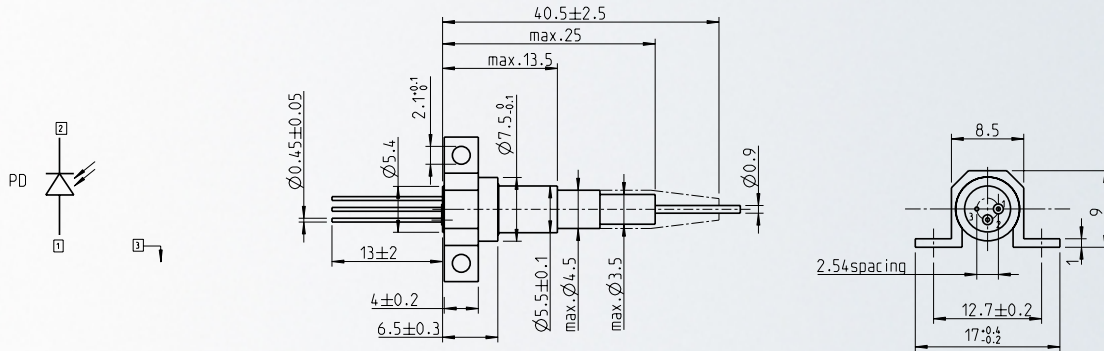
Outline Drawing of Type 0CH (no flange)

Version B (short boot version)

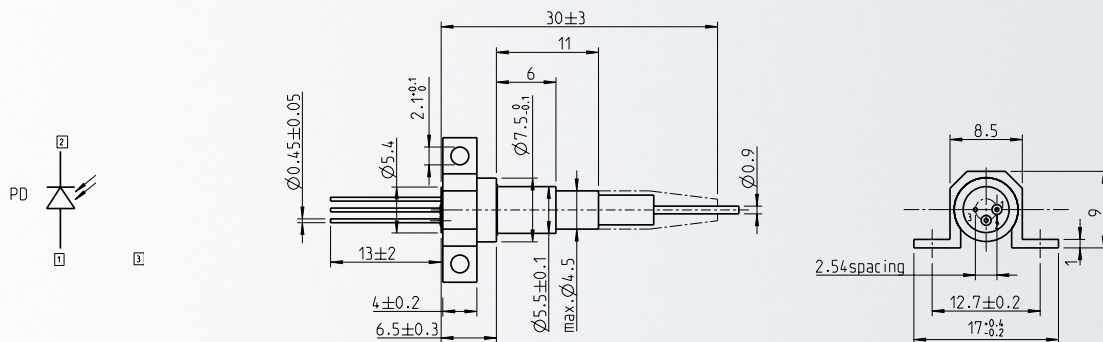


6.0 mm diameter housing under development

Version A (long boot version)



Version B (short boot version)



PD - PIN Diode

C - F: Horizontal Flange

H - C: Coaxial

0000 - H: HighFrequency (2.5 Gb/s)

0000: specified for 2nd and 3rd window (1310, 1550 nm)

FC - FC: FC/PC

AI - AI00: 0,85 A/W & BR < 27 dB
AI01: 0,85 A/W & BR < 40 dB
AI10: 0,70 A/W & BR < 27 dB
AI11: 0,70 A/W & BR < 40 dB

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