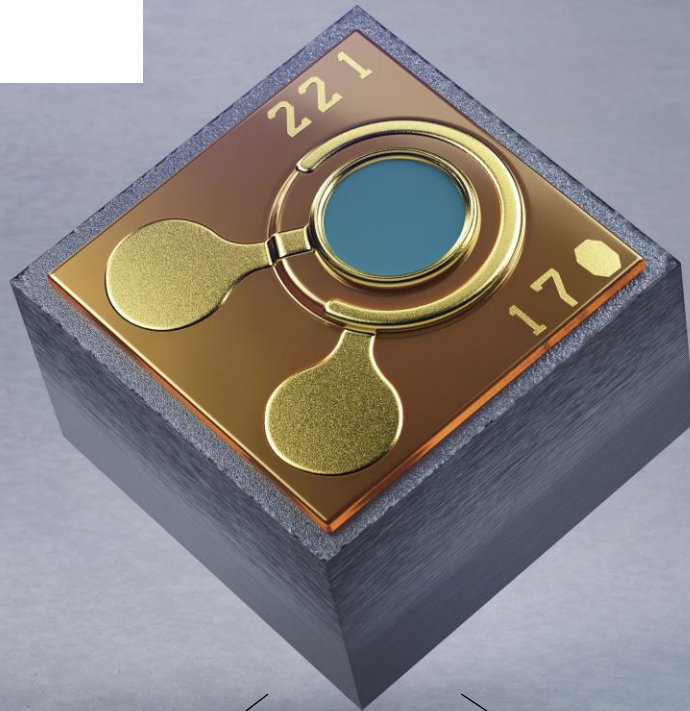


PIN Photodiode

10 Gbps
850 nm



High speed up to
10 Gbps

GaAs PIN
Photodiode

Available in
1x1, 1x4, 1x12

Low bias voltage

Low dark current

4 inch wafer

TRUMPF

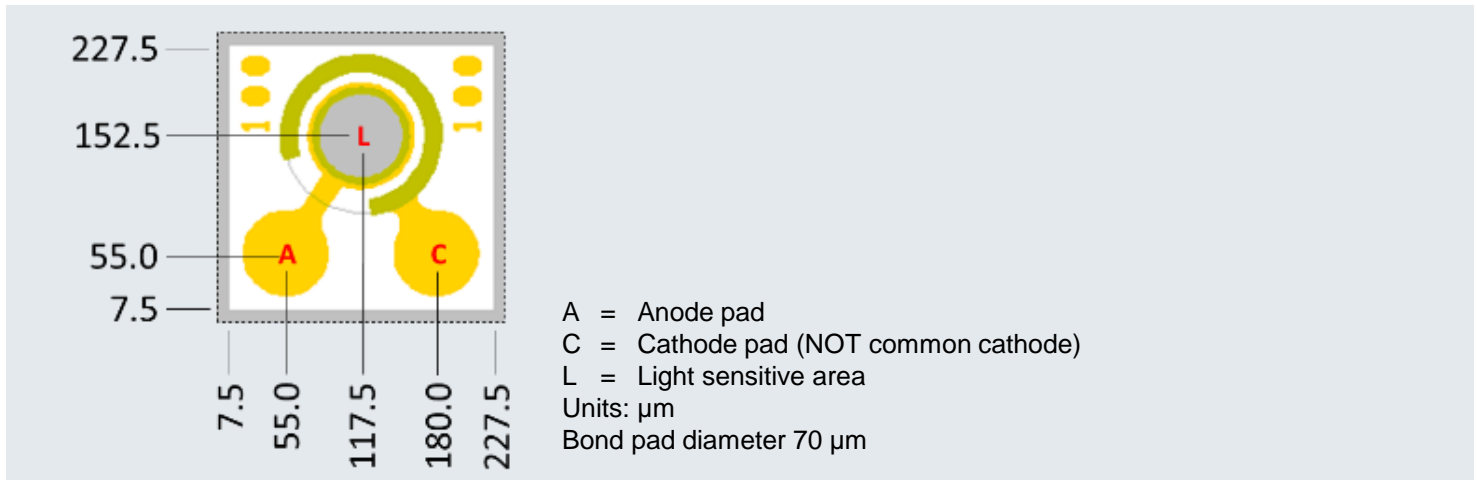


Datasheet: 10 Gbps PIN Photodiode

Electro-Optical Characteristics (T = 25°C unless otherwise stated)

Parameter	Symbol	Units	Min	Typ	Max	Test Condition
Responsivity	R	A/W		0.6		
Active area diameter	d_{act}	μm		70		
Dark current 1	I_{d1}	nA		0.02	0.2	$U_{bias} = -2\text{ V}$
Dark current 2	I_{d2}	μA			I	$U_{bias} = -20\text{ V}$
Capacitance	C	fF		290		$U_{bias} = -2\text{ V}$
Modulation bandwidth	$f_{3\text{ dB}}$	GHz		8		50 Ohm load, -3dB, $U_{bias} = -2\text{ V}$
Wavelength range	λ	nm	840		860	

Dimensions of 10G Photodiode:



Product variants

Type	Single chip	1 x 4 line array	1 x 12 line array
Part number	TPD-10(01)-850-A0	TPD-10(04)-850-A0	TPD-10(12)-850-A0
Ordering number	ULMPIN-10-TT-N0101U (PD10)	ULMPIN-10-TT-N0104U (PD10)	ULMPIN-10-TT-N0112U (PD10)
Dimensions	235 x 235 x 150 μm	235 x 985 x 150 μm	235 x 2985 x 150 μm
Wiring		Electrically separated channels	Electrically separated channels

For more information visit
www.trumpf.com/s/VCSEL-solutions

Safety information:

- Invisible laser radiation / avoid beam exposure / class 3B laser product
- Electrostatic sensitive devices / observe precautions for handling

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E-mail: photonic.components@trumpf.com · Homepage: www.trumpf.com/s/VCSEL-solutions

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