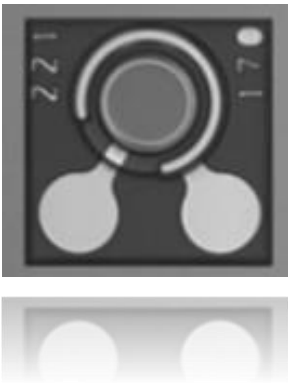


# 10 Gbps PIN Photodiode Chip

## IxI/4/I2 chip

- GaAs PIN Photodiode
- low bias voltage, low dark current
- up to 10 Gbps speed
- e.g. for GbE, fiber channel data transmission



ELECTRO-OPITCAL CHARACTERISTISCS						
Chip temperature = 25°C unless otherwise stated						
PARAMETER	SYMBOL	UNITS	MIN	TYP	MAX	TEST CONDITIONS
Responsivity	R	A/W		0.6		
Active area diameter	d <sub>act</sub>	µm		70		
Dark current 1	I <sub>d1</sub>	nA		0.02	0.2	U <sub>bias</sub> = -2 V
Dark current 2	I <sub>d2</sub>	uA			I	U <sub>bias</sub> = -20 V
Capacitance	C	fF		290		U <sub>bias</sub> = -2 V
Modulation bandwidth	v <sub>3dB</sub>	GHz		8		50 Ohm load, -3dB, U <sub>bias</sub> = -2 V
Wavelength range	λ	nm	840		860	

### Absolute Maximum Ratings

Storage temperature	-40...140°C
Operating temperature	-40...85°C
Continuous forward current	10mA
Soldering temperature	330°

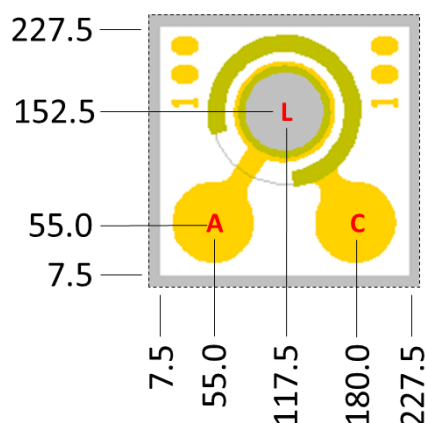
**NOTICE:** Stresses greater than those listed under „Absolute Maximum Ratings“ may cause permanent damage to the device. These are stress ratings only and functional operation of the device at these or any other condition beyond those indicated for extended periods of time may effect device reliability.



**ATTENTION:** Electrostatic Sensitive Devices  
Observe Precautions for Handling

## Single Photodiode chip

Description	PD chip, single channel
Type	ULMPIN-I0-TT-N0101U
Mounting	anode and cathode wire bonding on front side
Dimensions	235 $\mu\text{m}$ x 235 $\mu\text{m}$
Thickness	150 $\mu\text{m}$



A = Anode pad  
C = Cathode pad (NOT common cathode)  
L = Light sensitive area

Bond pad diameter: 70  $\mu\text{m}$

Units:  $\mu\text{m}$

## Photodiode line arrays

Description	1 x 4 PD line array	1 x 4 PD line array
Type	ULMPIN-I0-TT-N0104U	ULMPIN-I0-TT-N0112U
Wiring	Electrically separated channels	Electrically separated channels
Dimensions	235 $\mu\text{m}$ x 985 $\mu\text{m}$	235 $\mu\text{m}$ x 2985 $\mu\text{m}$
Thickness	150 $\mu\text{m}$	150 $\mu\text{m}$



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