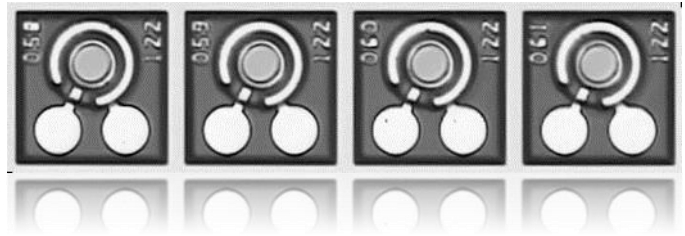


## 14 Gbps PIN Photodiode Chip

- GaAs PIN Photodiode
- Low bias voltage, low dark current
- High speed modulation up to 14 Gbps
- E.g. for FDR InfiniBand data transmission



### PRELIMINARY

#### ELECTRO-OPTICAL CHARACTERISTICS

Chip temperature = 25°C unless otherwise stated

PARAMETER	SYMBOL	UNITS	MIN	TYP	MAX	TEST CONDITIONS
Responsivity	R	A/W		0.6		
Active area diameter	$d_{acc}$	$\mu\text{m}$		55		
Dark current 1	$I_{d1}$	nA		0.02	0.2	$U_{bias} = -2V$
Dark current 2	$I_{d2}$	$\mu\text{A}$			1	$U_{bias} = -20V$
Capacitance	C	fF		200		$U_{bias} = -2V$
Modulation bandwidth	$V_{3dB}$	GHz		12		50Ohm load, -3dB, $U_{bias} = -2V$
Wavelength range	$\lambda$	nm	840		860	

#### Absolute Maximum Ratings

Storage temperature	-40...140°C
Operating temperature	0...85°C
Continuous forward current	10mA
Soldering temperature	330°C

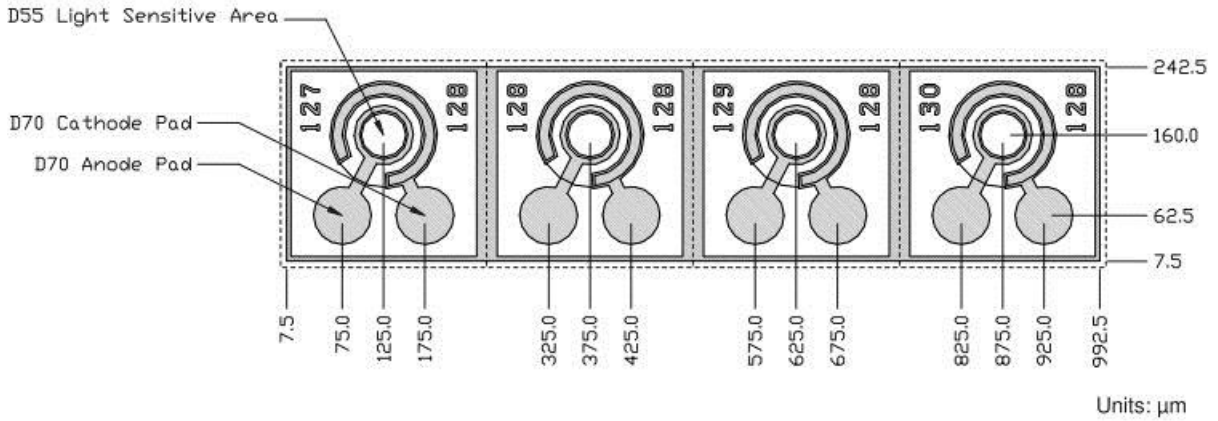
**NOTICE:** Stresses greater than those listed under „Absolute Maximum Ratings“ may cause permanent damage to the device. These are stress ratings only and functional operation of the device at these or any other condition beyond those indicated for extended periods of time may effect device reliability.



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

Single Photodiode chip

Description	PD chip, single channel
Type	ULMPIN-I4-TT-N0101U
Mounting	anode and cathode wire bonding on front side
Dimensions	235 $\mu\text{m}$ x 235 $\mu\text{m}$
Thickness	150 $\mu\text{m}$



Photodiode line arrays

Description	1 x 12 PD line array	1 x 4 PD line array
Type	ULMPIN-I4-TT-N0112U	ULMPIN-I4-TT-N0104U
Wiring	separate cathodes	separate cathodes
Dimensions	235 $\mu\text{m}$ x 2985 $\mu\text{m}$	235 $\mu\text{m}$ x 985 $\mu\text{m}$
Thickness	150 $\mu\text{m}$	150 $\mu\text{m}$

