

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_{act}	μm		55		
Dark current 1	I_{d1}	nA		0.02	0.2	$U_{bias} = -2V$
Dark current 2	I_{d2}	μA			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	λ	nm	840		860	

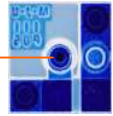
ABSOLUTE MAXIMUM RATINGS

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

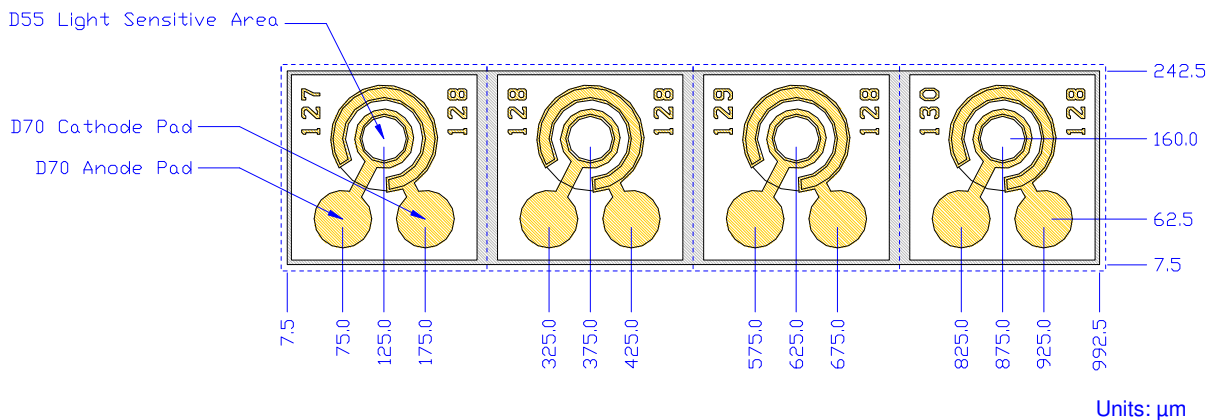


ATTENTION: Electrostatic Sensitive Devices
Observe Precautions for Handling



Single Photodiode chip:

- Description:** PD chip, single channel
Type: ULMPIN-14-TT-N0101U
Mounting: anode and cathode wire bonding on front side
Dimensions: 235 μm x 235 μm
Thickness: 150 μm



Photodiode line arrays:

- | | | |
|---------------------|--|---------------------------------------|
| Description: | 1 x 12 PD line array | 1 x 4 PD line array |
| Type: | ULMPIN-14-TT-N0112U | ULMPIN-14-TT-N0104U |
| Wiring: | separate cathodes | separate cathodes |
| Dimensions: | 235 μm x 2985 μm | 235 μm x 985 μm |
| Thickness: | 150 μm | 150 μm |