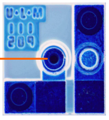


4 Gbps PIN Photodiode Chip

- GaAs PIN Photodiode
- low bias voltage, low dark current
- up to 4.25 Gbps speed
- e.g. for GbE, fiber channel data transmission

Preliminary

ELECTRO-OPTICAL CHARACTERISTICS

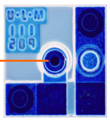
PARAMETER	SYMBOL	UNITS	MIN	TYP	MAX	TEST CONDITIONS
Responsivity	R	A/W	0.5			
Active area diameter	d_{act}	µm	100			
Dark current 1	I_{d1}	nA			3	U_{bias} = 2V
Dark current 2	I_{d2}	nA			10	U_{bias} = 20V
Capacitance	C	pF		0.4		
Modulation bandwidth	ν_{3dB}	GHz	4			U_{bias} = 2V
Rise and fall time	t_R/t_F	ps			90.0	U_{bias} = 2V, 20%-80%
Wavelength range	λ	nm	830		860	

ABSOLUTE MAXIMUM RATINGS

Storage temperature	-40 .. 125 ℃
Operating temperature	-20 .. 85℃
electrical power dissipation	10 mW
Continuous forward current	3 mA
Soldering temperature	330℃

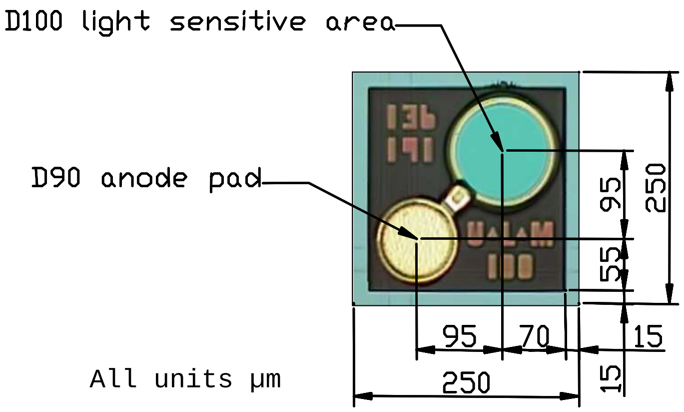
NOTICE: Stresses greater than those listed under „Absolute Maximum Ratings“ may cause permanent damage to the device. These are stress ratings only and functional operation of the device at these or any other condition beyond those indicated for extended periods of time may effect device reliability.

ATTENTION: Electrostatic Sensitive Devices
Observe Precautions for Handling



Single Photodiode chip:

Description:	PD chip, single channel
Type:	ULMPIN-04-TN-U0101U
Mounting:	anode wire bonding, cathode on substrate side
Dimensions:	0.25 mm x 0.25 mm
Thickness:	0.15 mm



Photodiode line arrays:

Description:	1 x 12 PD line array	1 x 4 PD line array
Type:	ULMPIN-04-TN-U0112U	ULMPIN-04-TN-U0104U
Dimensions:	0.25 mm x 3.0 mm	0.25 mm x 1.0 mm
Thickness:	0.15 mm	0.15 mm