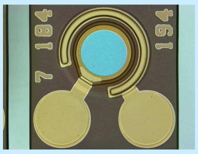
10 Gbps PIN Photodiode Chip



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

Preliminary

ELECTRO-OPTICAL CHARACTERISTICS

Chip temperature = 25℃ unless otherwise stated

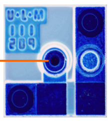
PARAMETER	SYMBOL	UNITS	MIN	TYP	MAX	TEST CONDITIONS
Responsivity	R	A/W		0.6		
Active area diameter	d_{act}	µm		70		
Dark current 1	I_{d1}	nA		0.02	0.2	U_{bias} = -5V
Dark current 2	I_{d2}	uA			1	U_{bias} = -20V
Capacitance	C	fF		290		Ubias = -5V
Modulation bandwidth	v_{3dB}	GHz		8		50Ohm load, -3dB, U_{bias}=-5V
Wavelength range	l	nm	840		860	

ABSOLUTE MAXIMUM RATINGS

Storage temperature	-40…140	℃
Operating temperature	-40…85	℃
Continous forward current	10	mA
Soldering temperature	330	℃

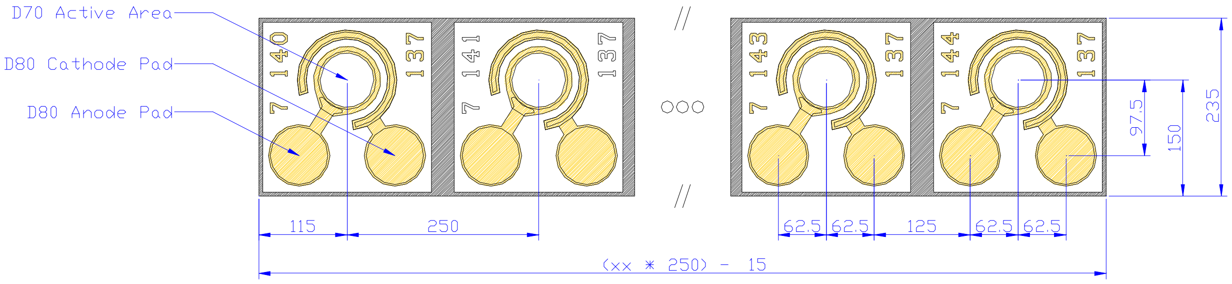
NOTICE: Stresses greater than those listed under „Absolute Maximum Ratings" may cause permanent damage to the device. These are stress ratings only and functional operation of the device at these or any other condition beyond those indicated for extended periods of time may effect device reliability.

ATTENTION: Electrostatic Sensitive Devices
Observe Precautions for Handling



Single Photodiode chip:

Description:	PD chip, single channel
Type:	ULMPIN-10-TT-N0101U
Mounting:	anode and cathode wire bonding on front side
Dimensions:	235 um x 235 um
Thickness:	150 um



Units: µm

Photodiode line arrays:

Description:	1 x 12 PD line array	1 x 4 PD line array
Type:	ULMPIN-10-TT-N0112U	ULMPIN-10-TT-N0104U
Dimensions:	235 um x 2985 um	235 um x 985 um
Thickness:	150 um	150 um