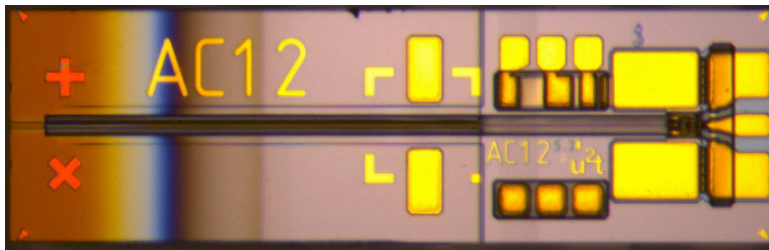


# 35 GHz HIGH POWER PHOTODIODE

## CXPDV2xx0

The CXPDV2xx0 is an optimized photodiode, operating at the C-bands. The chip provides a low PDL and comes with integrated chip biasing. The 50  $\Omega$  termination resistor provides excellent matching of the electrical output signal. An alternative configuration with 50  $\Omega$  termination is available (see CXPDV2xx0R with a bandwidth of 50 GHz). Due to the optimized combination of the waveguide and the active photodiode design, the CXPDV2xx0 achieves excellent linearity, high responsivity, and superior flatness of RF response and therefore ensures superb performance, even at high optical powers.



Picture shows product example, actual product might differ

## FEATURES

- High 3dB bandwidth of >35 GHz
- Optical window at 1550 nm
- Excellent linearity
- High responsivity of >0.5 A/W
- Low PDL of < 0.5 dB
- Superior flatness

## APPLICATIONS

- Optical communication components
- Advance component R&D
- Microwave Photonics

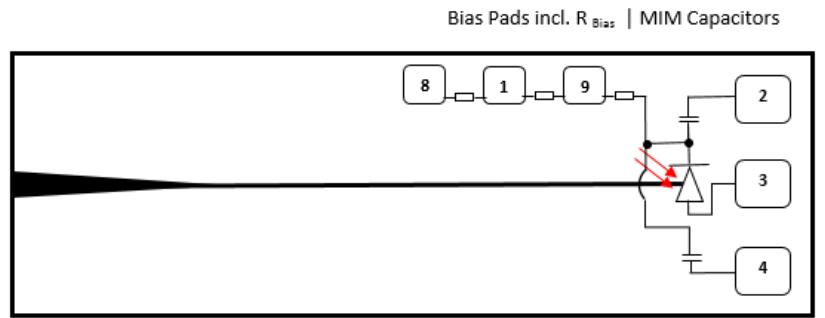
# 35 GHz HIGH POWER PHOTODIODE

## Product Selection

### CXPDV2xx0

<b>xx</b>	12	= Standard version
	05	= Low PDL

## Block Diagram



Spot-size converter | optical waveguide | Pin PD | RF out - CPW

## Key Specifications

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Operating Case Temperature	$T_{CASE}$		0		75	°C
Storage Temperature	$T_{STORE}$		-40		125	°C
Wavelength Range	$\lambda$			1550		nm
Photodiode Supply Voltage	$V_{PD}$			2.8		V
Average Optical Input Power	$P_{OPT_{avg}}$	At facet			16	dBm
Photodiode DC Responsivity	R		0.4			A/W
Polarization-Dependent Loss	PDL	CXPDV2120 CXPDV2050			0.5 0.25	dB
Photodiode Dark Current	$I_{DARK}$	$T_{CASE} = 25\text{ °C}$		5		nA
3 dB Cut-off Frequency	$f_{3dB}$		35			GHz
Output Reflection Coefficient	$S_{22}$				-1	dB

