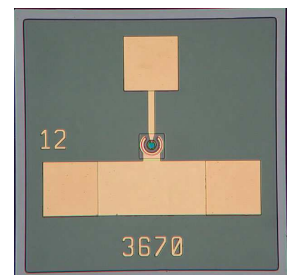


# PDCS12T

## 40 Gb/s Photodiode

PDCS12T is an InGaAs/InP ultra high speed photodiode chip featuring an optical aperture with a diameter of 12  $\mu\text{m}$ . The chip is available either with a tapered coplanar transmission line or a T-shaped pad outline. The top illuminated photodiode is optimized for single-mode data- and telecom applications up to 43 Gb/s and offers an excellent responsivity and high speed of response in the wavelength region from 1260 to 1620 nm.

The coplanar pad structure provides a 50  $\Omega$  impedance matched connection to a broadband amplifier. The T-shaped pad layout offers a large cathode pad for versatile assembly options with short bond wires.



### BENEFITS

- Ultra high speed
- Two layout options available
- Suitable for flip-chip bonding

### FEATURES

- Top illuminated 40 Gb/s InGaAs photodiode
- Optical aperture: 12  $\mu\text{m}$
- Typical responsivity of 0.6 A/W @ 1310 nm
- Low capacitance: 70 fF
- Low dark current: 2 nA
- Low bias voltage: 2.5 V
- Operating temperature range: -40 to 85  $^{\circ}\text{C}$

### APPLICATIONS

- 40G SONET / SDH
- 25G Ethernet
- 40 GHz analog links

### AVAILABILITY

- Volume production

