

# PDCS60T-XS

## Long Wavelength 10 Gb/s Photodiode Chip

### Product Description

The PDCS60T-XS is a high speed photodiode chip with a dual-pad layout and an optical aperture with a diameter of 60  $\mu\text{m}$ . The top illuminated photodiode is optimized for single-mode data- and telecom applications up to 12 Gb/s and offers excellent responsivity and a high speed response from 1260 to 1360 nm. Over this wave-length range, an AR coating provides low reflectivity and high return loss. Furthermore, the photodiode is optimized to provide the best trade-off between a large active area and low capacitance and achieves full speed at a bias voltage of only 1.5 V. The pad metallization is optimized for wire-bonding with the pads positioned to enable easy and direct bonding to any TIA layout. In addition, the small chip footprint saves valuable space in small packages such as TO-46.

### Highlights

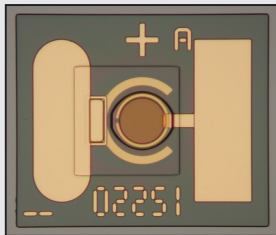
- Large optical aperture: 60  $\mu\text{m}$
- Large bandwidth: 10 Gbps
- Low capacitance: 220 fF
- Low dark current: 2 nA
- Pad layout allows easy bonding to any TIA layout
- Small chip size for easy assembly on TO headers

### Applications

- 10GBase-LRM
- 10 G Ethernet / Fiber Channel
- 10 Gb/s SONET / SDH

### Availability

- Volume production



Dimensions: 300 x 350  $\mu\text{m}$

### Characteristics (T=25 °C)

Parameter	Sym	$U_R$	Min	Typ	Max	Unit
Diameter of optical aperture	$\varnothing$			60		$\mu\text{m}$
Responsivity $\lambda = 1310 \text{ nm}$	R	2.5 V	0.8	0.9		A/W
Dark current $T = 25 \text{ }^\circ\text{C}$	$I_D$	5 V		2	10	nA
$T = 85 \text{ }^\circ\text{C}$					200	
Bandwidth	B	2.5 V	8		10	GHz
Total capacitance	C	2.5 V		220	240	fF

For detailed product information visit [www.albisopto.com](http://www.albisopto.com)



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