High Speed InGaAs p-i-n Photodiode

13PD100-TO

The 13PD100-TO, an InGaAs photodiode with a 100µm-diameter photosensitive region packaged in a TO-46 header, is the largest standard device enabling a 1 GHz frequency cutoff. Planar semiconductor design and dielectric passivation provide low noise performance. Reliability is assured by hermetic sealing and 100% purge burn-in (200°C, 15 hours, V_r = 20V). Chips can also be attached and wire bonded to customer-supplied or other specified packages. Headers are available with either a lensed or flat window cap.

Features

Planar Structure
Dielectric Passivation
100% Purge Burn-In
High Responsivity

Device Characteristics:

Parameters	Test Conditions	Min	Typ	Max	Units
Operating Voltage	-	-	-	-20	Volts
Dark Current	-5V	-	0.5	2	nA
Capacitance	-5V	-	1.15	-	pF
Responsivity	1300nm	0.8	0.90	-	A/W
Rise/Fall	-	-	-	0.5	ns
Frequency Response	(-3dB)	-	1.0	-	GHz

Absolute Maximum Ratings

Reverse Voltage	30 Volts
Forward Current	10 mA
Reverse Current	500 µA
Operating Temperature	-40°C to + 85°C
Storage Temperature	-40°C to + 85°C
Soldering Temperature	250°C

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