

FP1015c

50 GHz High-Power Photodetector

Product Brief

FEATURES

- 50 GHz bandwidth
- Compact, low-profile package
- Single-mode fiber input

APPLICATIONS

- RF Photonic Links
- Photonic RF Generation
- Sensing
- Communications

Notes

1. Device is unterminated for high power applications.
2. This design requires an external bias tee.
3. Measurements taken for specification were performed at 20°C and -3 V bias into a 50 Ω load, at a wavelength of 1550nm.

OVERVIEW

The FP1015c high-power photodetector is designed for high-power, wide-bandwidth applications. This device has a compact, low-profile package with a single-mode SMF-28 fiber connection and a 1.85 mm “V” type female RF connector. This product has been developed for high optical power applications such as RF photonic links, sensing, and photonic generation of RF signals up to 50 GHz.

The specifications shown below describe the FP1015c model. Options are available to customize our high-power photodiode product to your specific application that may demand responsivity, RF power, or bandwidth performance to be optimized. An external bias tee is required.” (we are only developing integrated bias tees up to 40 GHz).

SPECIFICATIONS

| Parameter | | Value | Unit |
|--|-----|-------|------|
| Wavelength Range (Optimum) | min | 1280 | nm |
| | max | 1620 | nm |
| Responsivity | min | 0.1 | A/W |
| Bandwidth | min | 50 | GHz |
| Output RF power (1-dB compression point) | min | 13 | dBm |
| Dark Current | max | 100 | nA |
| Operating Temperature | min | -5 | °C |
| | max | 75 | °C |

