ifw optronics

UV Large Area Avalanche Photodiode
UV LA APD

Avalanche photodiode with enhanced blue violet amplification

Sensor type:	Avalanche photodiode
Abbreviation:	UV LA APD

Geometrical parameters

Socle:	DIP
Chip:	5 mm × 5 mm
Active area:	4.4 mm × 4.4 mm

Electrical parameters

Operation bias:	210 V (±2 V)
Dark current (20 V):	0.3 nA @20 C (±5 %)
Dark current (210 V):	26 nA @20 C (±10 %)
Capacitance (20 V):	245 pF (±10 %)
Gain (405 nm 210 V):	42

Environment conditions

Operation temperature:	0 °C ... +45 °C
Storage temperature:	-20 °C ... +60 °C

Conformity

The sensor is RoHS-compliant in accordance with European Directive 2011/95/EC (RoHScompliant).

Appendix

The typical leakage current vs. reverse biasing at 20 C is shown in figure 1.

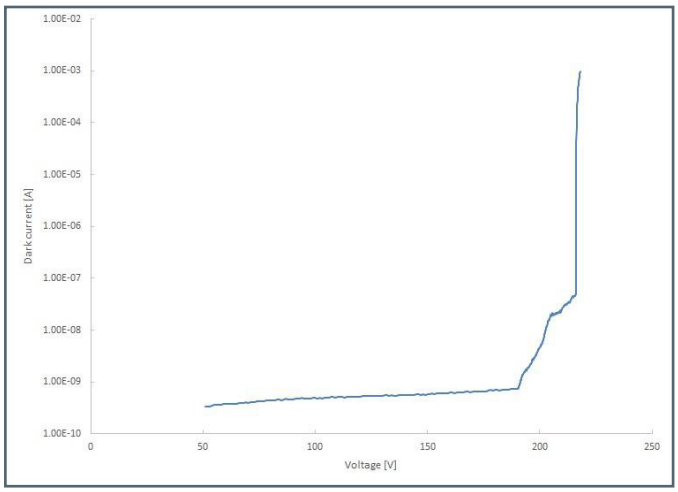

Figure 1: Leakage current vs. reverse voltage ag 20 C

The typical spectral gains vs. wavelength for biasing 180 V and 191 V are shown in figure 2

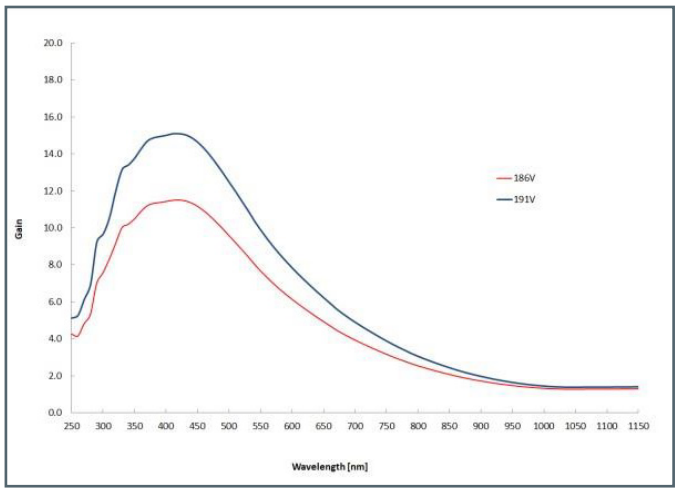

Figure 2: Gain vs. wavelength at 20 C

The terminal capacitance vs. reverse biasing is shown in figure 3

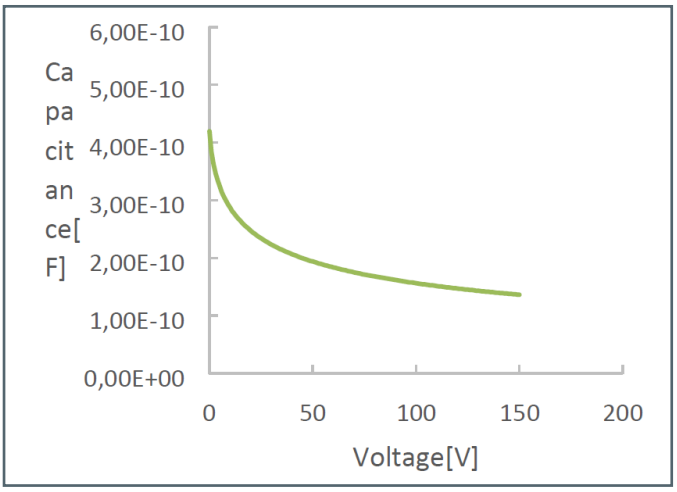

Figure 3: Capacitance vs. reverse voltage at 20 C

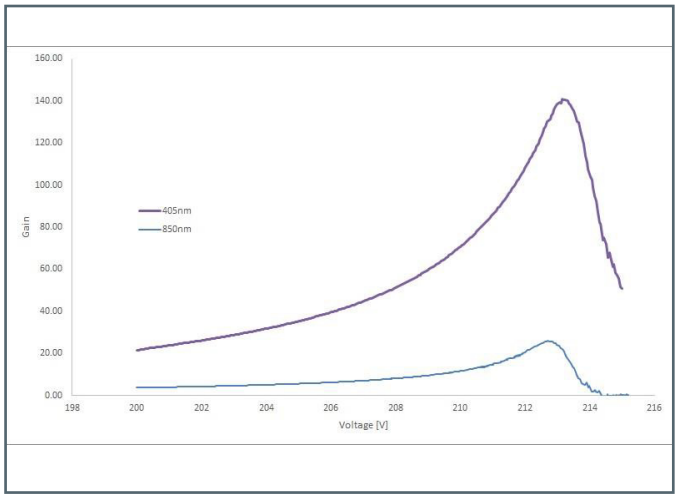

Figure 4: Gain vs. reverse voltage at 20 C

The gain vs. reverse voltage for blue light (405 nm) by different temperatures are shown in figure 5

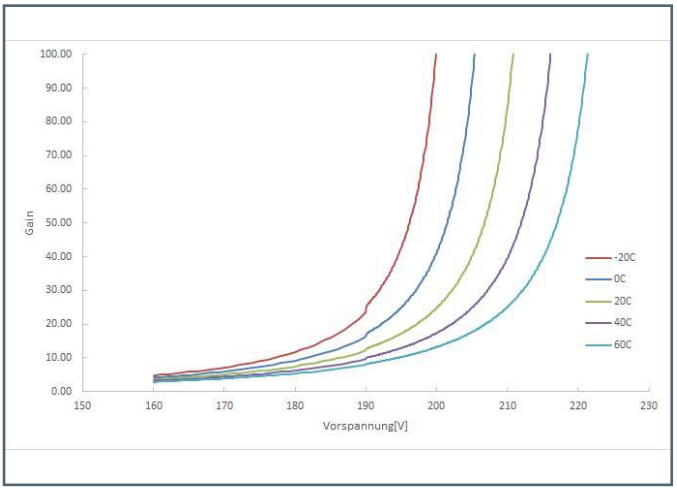

Figure 5: Gain vs. reverse voltage by different temperature