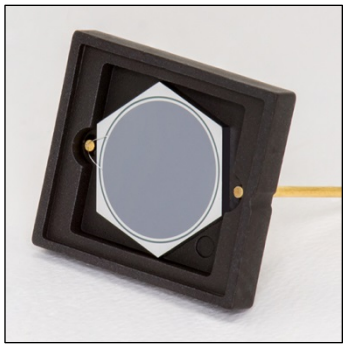
Photodiode Φ5 mm

AXUV20A



FEATURES

- Circular Active Area
- Ideal for Electron Detection
- Protective Cover Plate[3]

Electro-Optical Characteristics at 25 °C

Parameters	Test Conditions	Min	Typ	Max	Units
Active Area	Φ5.5 mm		23		mm^2
Responsivity	(see graphs on next page)				A/W
Shunt Resistance	V_f = ± 10 mV	100			MOhm
Reverse Breakdown Voltage, V_R	I_R = 1 µA	5	10		Volts
Capacitance, C	V_R = 10 V		500	1500	pF
Rise Time	V_R = 0 V, R_L = 50 Ω		2		usec

Thermal Parameters

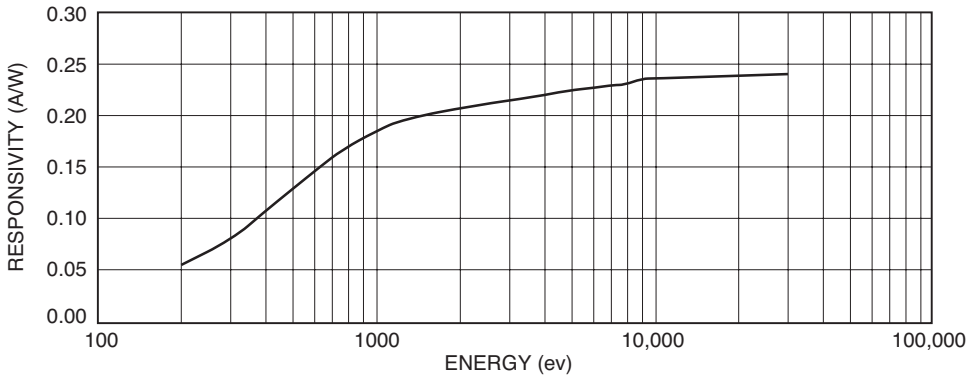
Storage and Operating Temperature Range	Units
Ambient[1]	-10 ° to 40 °C
Nitrogen or Vacuum	-20 °C to 80 °C
Lead Soldering Temperature[2]	260 °C

[1] Temperatures exceeding these parameters may create oxide growth on the active area.
Over time responsivity to low energy radiation and wavelengths below 150 nm will be compromised.

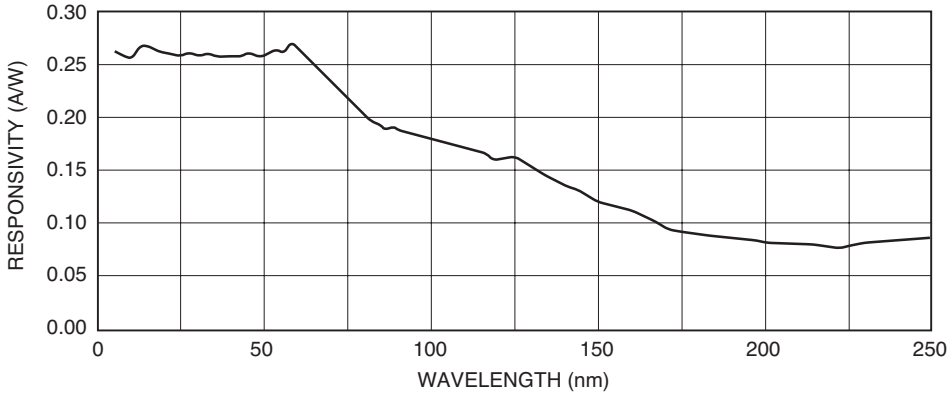
[2] 0.080" from case for 10 seconds.

[3] Shipped with temporary cover to protect the photodiode array and wire bonds.
Review the Application Note, “Handling Precautions for AXUV, SXUV, and UVG Detectors”, prior to removing cover.

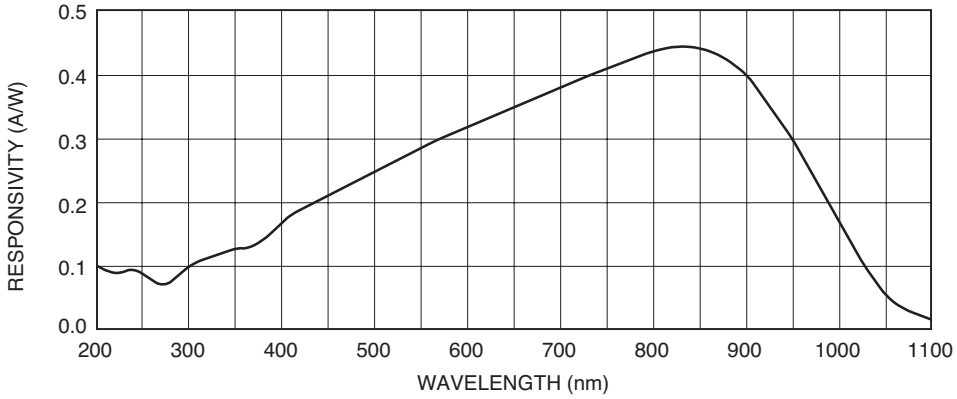
Typical Electron Response



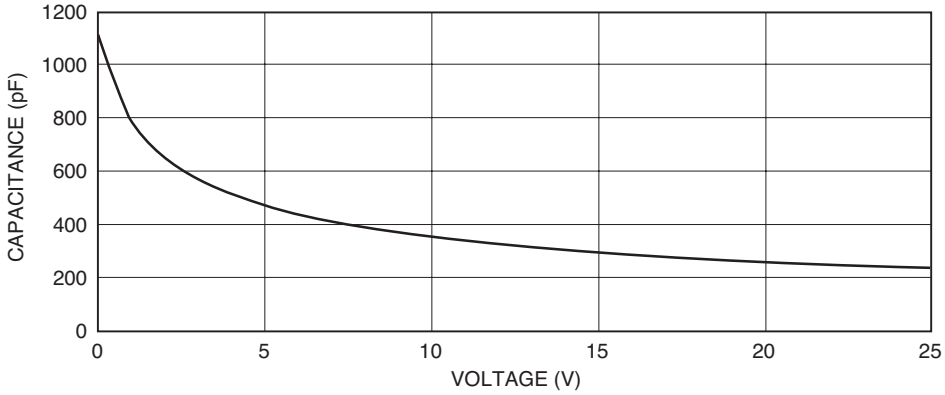
Typical EUV-UV Photon Response



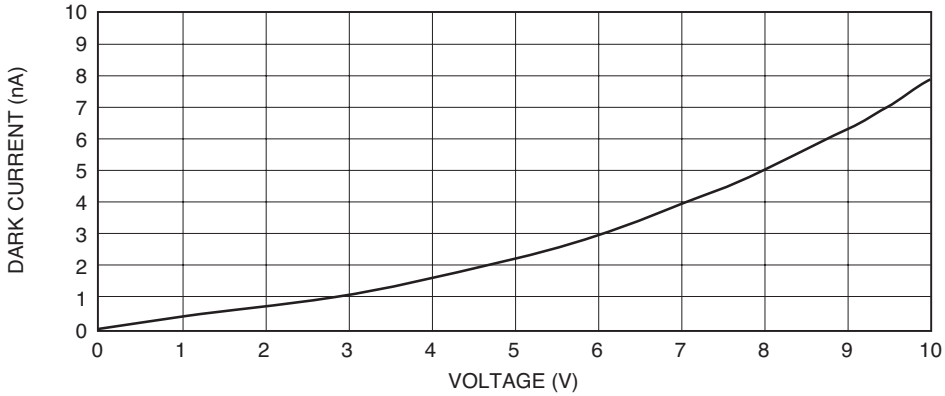
Typical UV-VIS-NIR Photon Responsivity



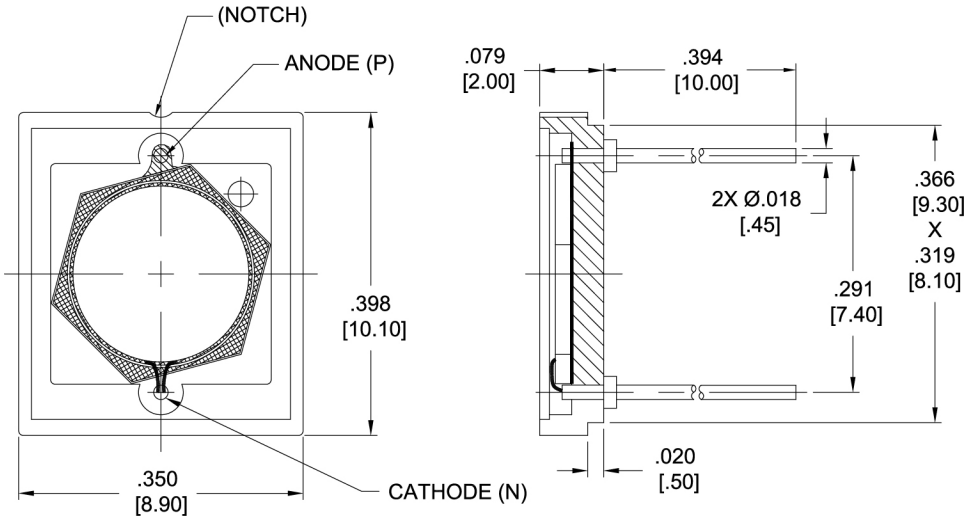
Capacitance vs. Voltage



Dark Current vs. Voltage



Package Information

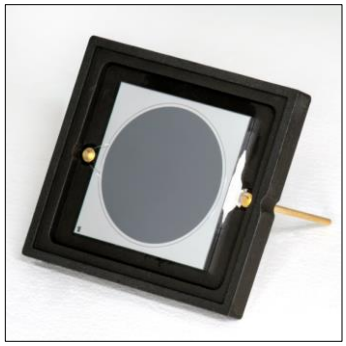


Dimensions are in inch [metric] units.

Specifications are subject to change without prior notice.

Photodiode Φ9 mm

AXUV63HS1



FEATURES

- Circular Active Area
- Ideal for Electron Detection
- High Speed
- Protective Cover Plate[3]

Electro-Optical Characteristics at 25°C

Parameters	Test Conditions	Min	Typ	Max	Units
Active Area	9 mm		63		mm^2
Responsivity	(see graphs on next page)				A/W
Reverse Breakdown Voltage, V_R	I_R = 1 µA	160			Volts
Capacitance, C	V_R = 0 V		700	2000	pF
Rise Time	R_L = 50 Ω, V_R = 150 V			10	nsec
Dark Current	V_R = 150 V			100	nA

Thermal Parameters

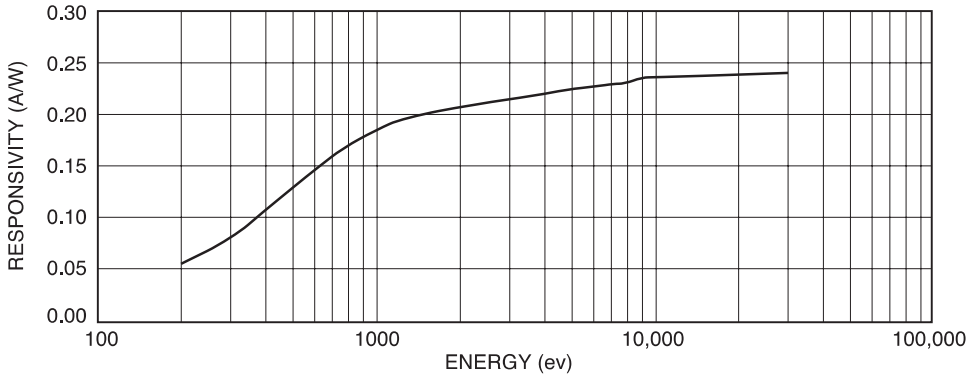
Storage and Operating Temperature Range	Units
Ambient[1]	-10 ° to 40 °C
Nitrogen or Vacuum	-20 °C to 80 °C
Lead Soldering Temperature[2]	260 °C

[1] Temperatures exceeding these parameters may create oxide growth on the active area.
Over time responsivity to low energy radiation and wavelengths below 150 nm will be compromised.

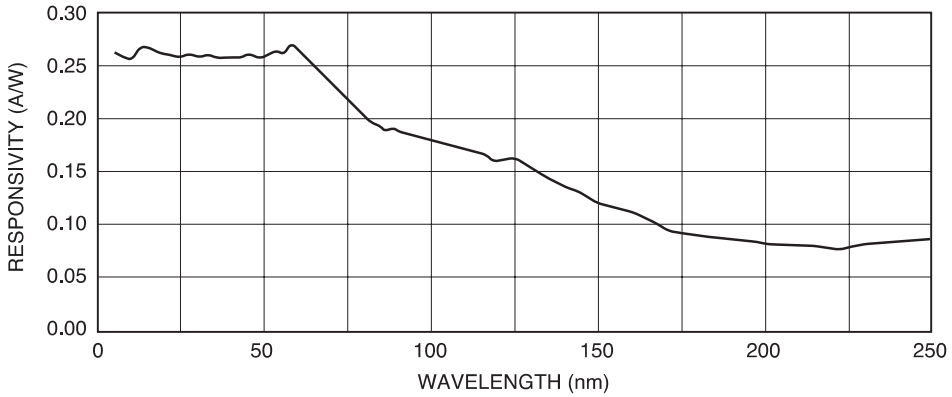
[2] 0.080" from case for 10 seconds.

[3] Shipped with temporary cover to protect the photodiode array and wire bonds.
Review the Application Note, “Handling Precautions for AXUV, SXUV, and UVG Detectors”, prior to removing cover.

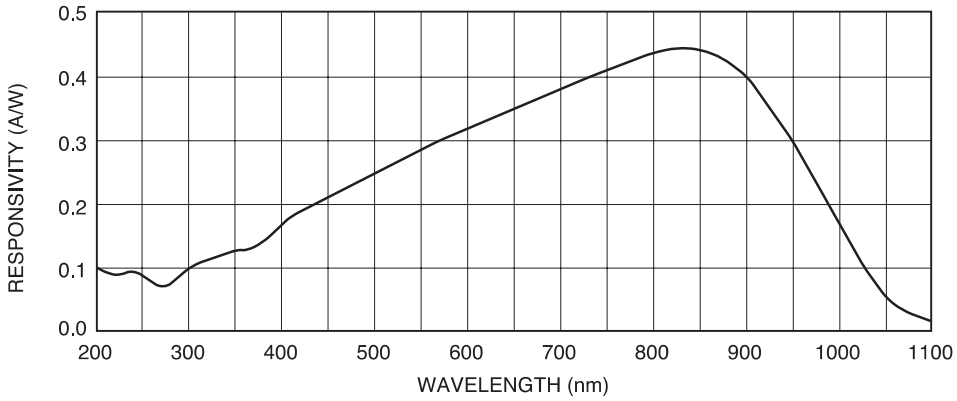
Typical Electron Response



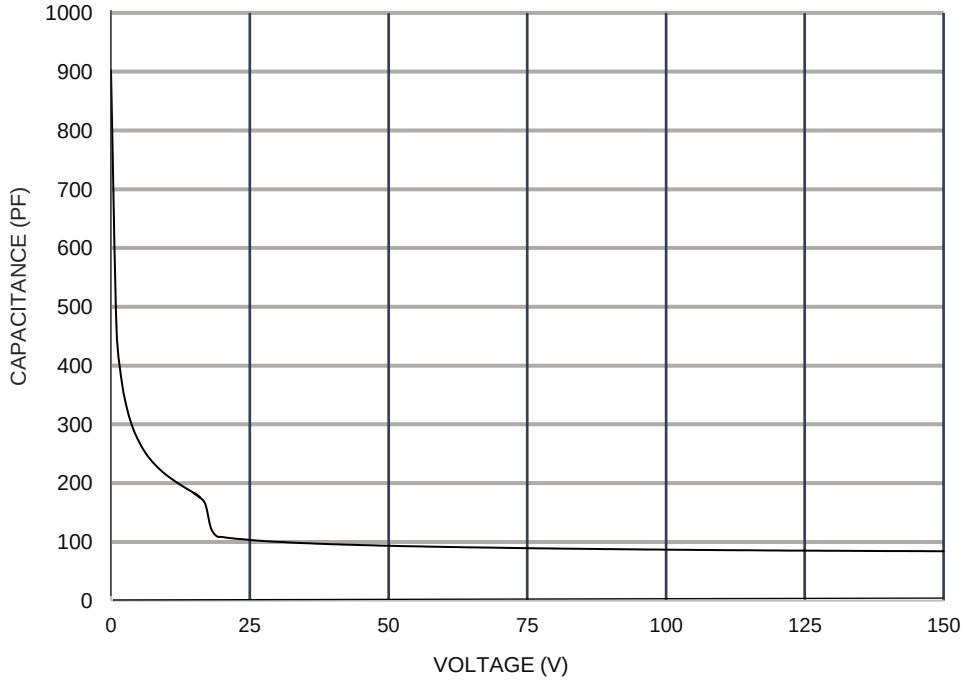
Typical EUV-UV Photon Response



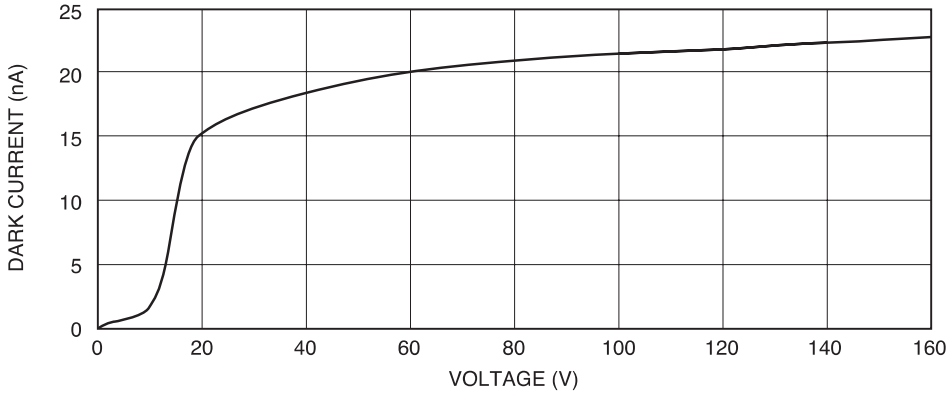
Typical UV-VIS-NIR Photon Responsivity



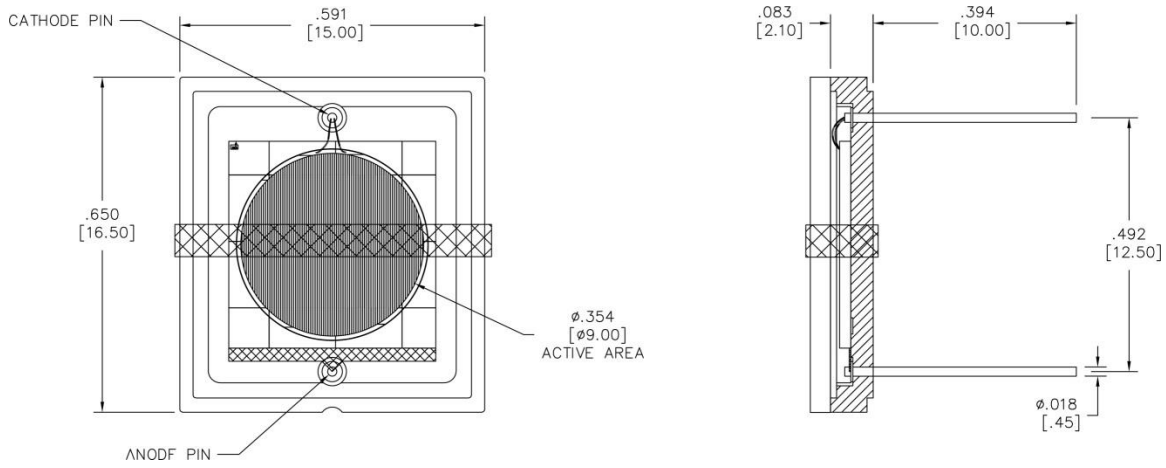
Capacitance vs. Voltage



Dark Current vs. Voltage



Package Information

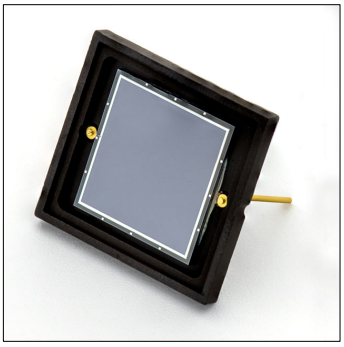


Dimensions are in inch [metric] units.

Specifications are subject to change without prior notice.

Electron Detection 100 mm²

AXUV100G



FEATURES

- Ideal for Electron Detection
- Large Detection Area
- Protective Cover Plate[3]

Electro-Optical Characteristics at 25 °C

Parameters	Test Conditions	Min	Typ	Max	Units
Active Area	10 mm x 10 mm		100		mm^2
Responsivity	(see graph on next page)	0.07	0.08	0.09	A/W
Shunt Resistance, Rsh	V_B = ± 10 mV	20			M-ohm
Reverse Breakdown Voltage, V_R	I_R = 1 µA	5	10		Volts
Capacitance, C	V_R = 0 V		5	15	nF
Rise Time	V_R = 0 V, R_L = 50 Ω			10	usec

Thermal Parameters

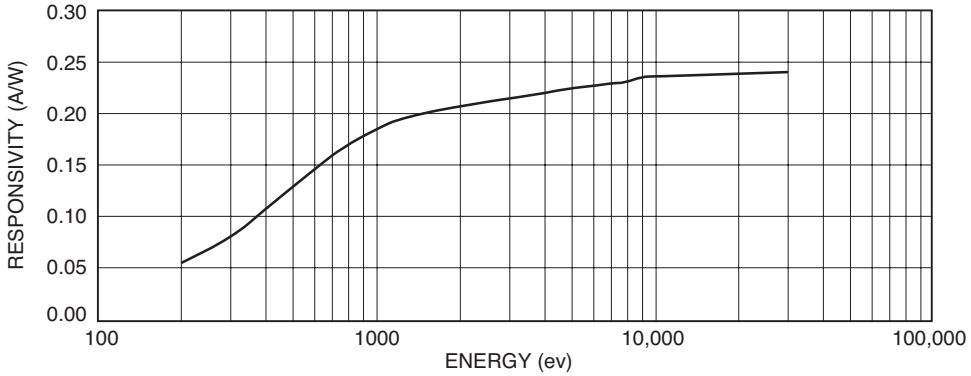
Storage and Operating Temperature Range	Units
Ambient[1]	-10 ° to 40 °C
Nitrogen or Vacuum	-20 °C to 80 °C
Lead Soldering Temperature[2]	260 °C

[1] Temperatures exceeding these parameters may create oxide growth on the active area.
Over time responsivity to low energy radiation and wavelengths below 150 nm will be compromised.

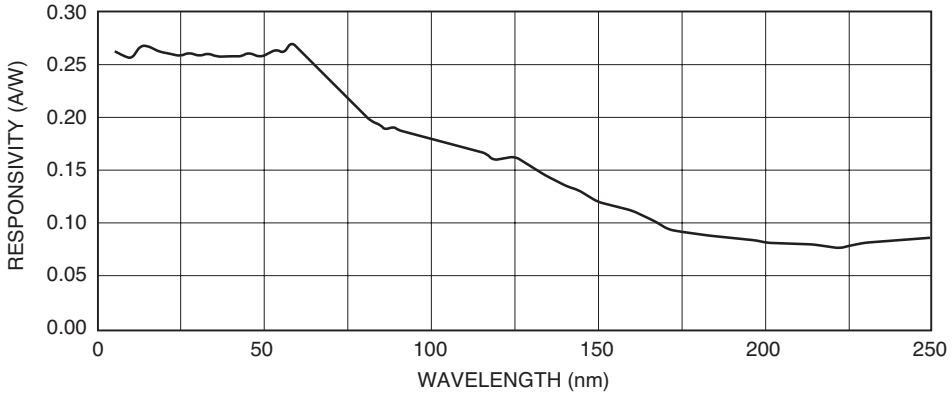
[2] 0.080" from case for 10 seconds.

[3] Shipped with temporary cover to protect the photodiode array and wire bonds.
Review the Application Note, “Handling Precautions for AXUV, SXUV, and UVG Detectors”, prior to removing cover.

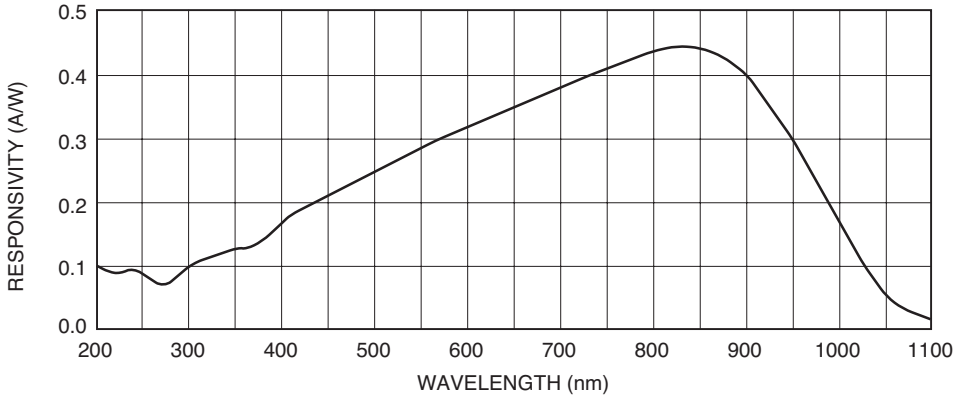
Typical Electron Response



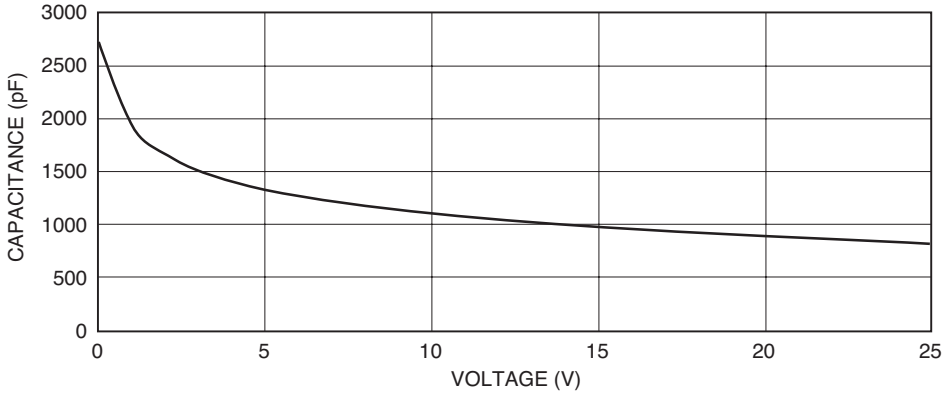
Typical EUV-UV Photon Response



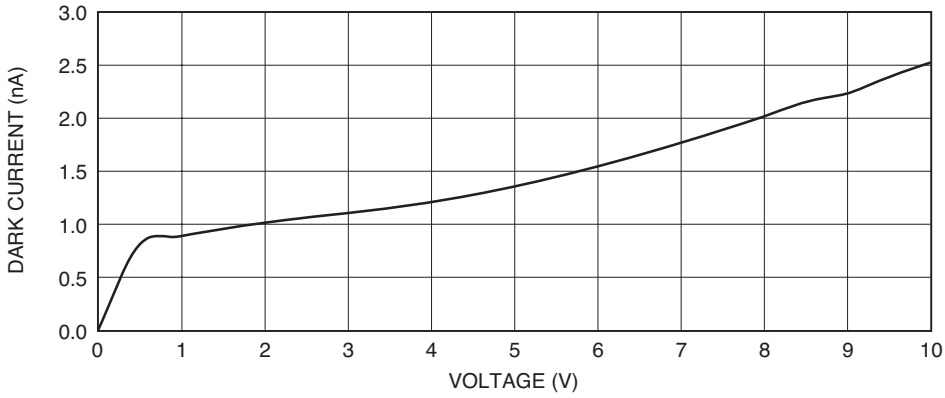
Typical UV-VIS-NIR Photon Responsivity



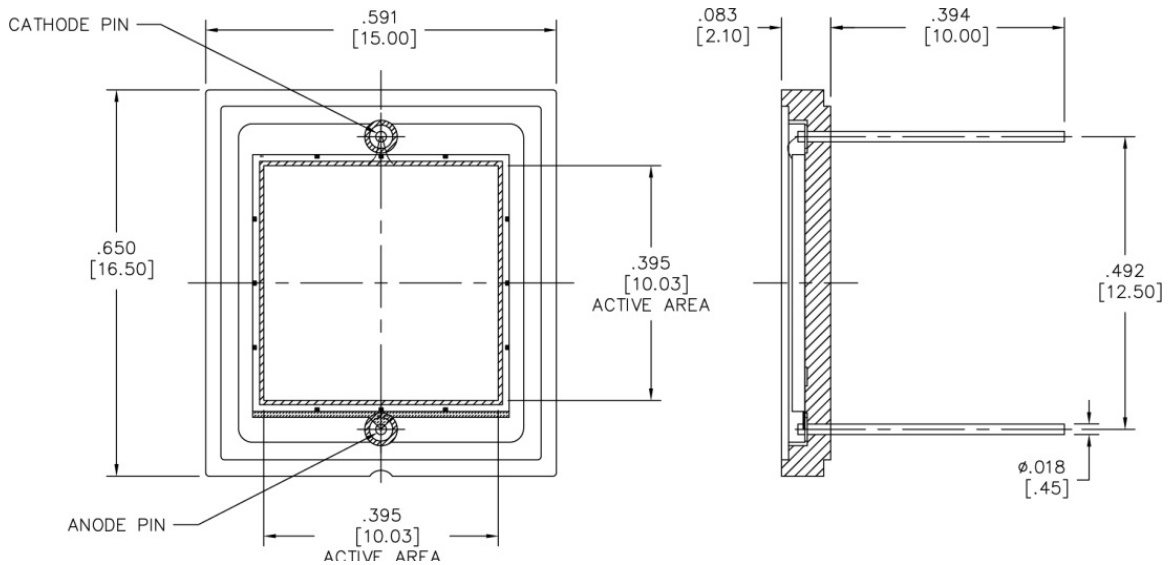
Capacitance vs. Voltage



Dark Current vs. Voltage



Package Information

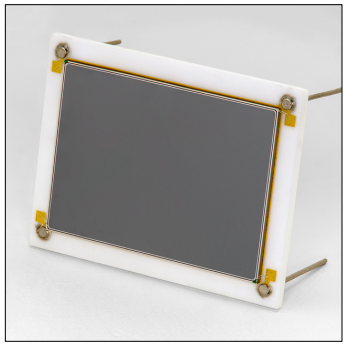


Dimensions are in inch [metric] units.

Specifications are subject to change without prior notice.

Electron Detection 331 mm²

AXUV300C



FEATURES

- Rectangle Active Area
- Large Detection Area
- 2 Anode and Cathode Pins
- Ideal for Electron Detection
- No Window for Extended Response to Below 200 nm

Electro-Optical Characteristics at 25°C

Parameters	Test Conditions	Min	Typ	Max	Units
Active Area	21.56 mm x 15.36 mm		331		mm^2
Responsivity	(see graphs on next page)				
Conductive Current, I_C	V_f = 0.8 V	1			mA
Breakdown Voltage, V_R	I_R = 1 µA	5	25		Volts
Capacitance, C	V_R = 10 V		25	40	nF
Response Time, tr	RL = 50 Ω, V_R = 0 V		15		usec
Shunt Resistance	@ ± 10 mV	5			MOhms

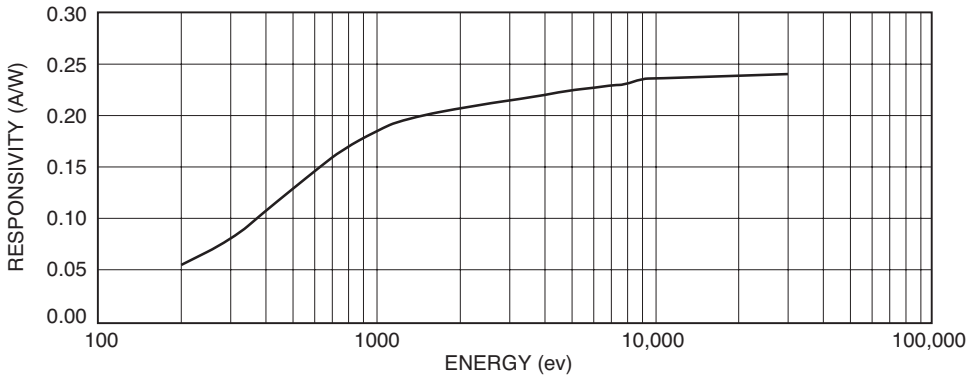
Thermal Parameters

Storage and Operating Temperature Range	Units
Ambient[1]	-10° to 40°C
Nitrogen or Vacuum	-20°C to 80°C
Lead Soldering Temperature[2]	260°C

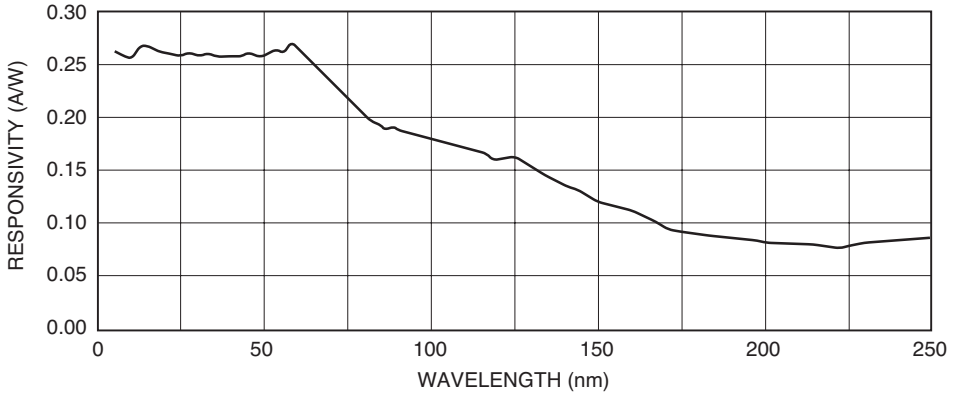
[1] Temperatures exceeding these parameters may create oxide growth on the active area.
Over time responsivity to low energy radiation and wavelengths below 150 nm will be compromised.

[2] 0.080" from case for 10 seconds.

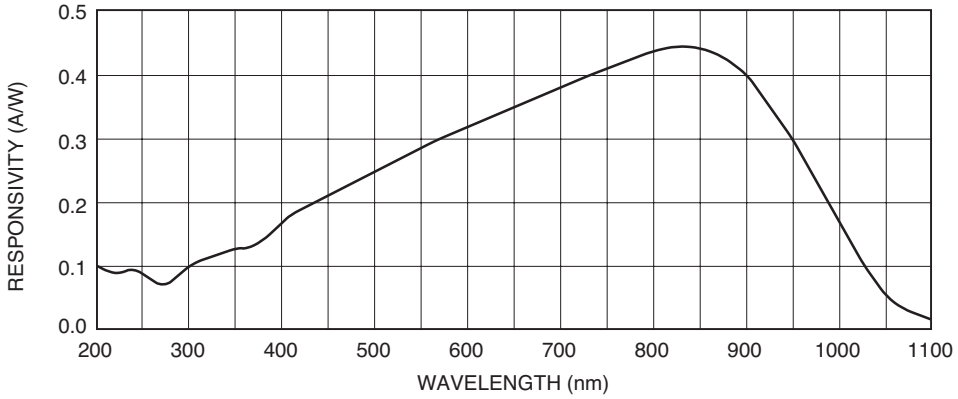
Typical Electron Response



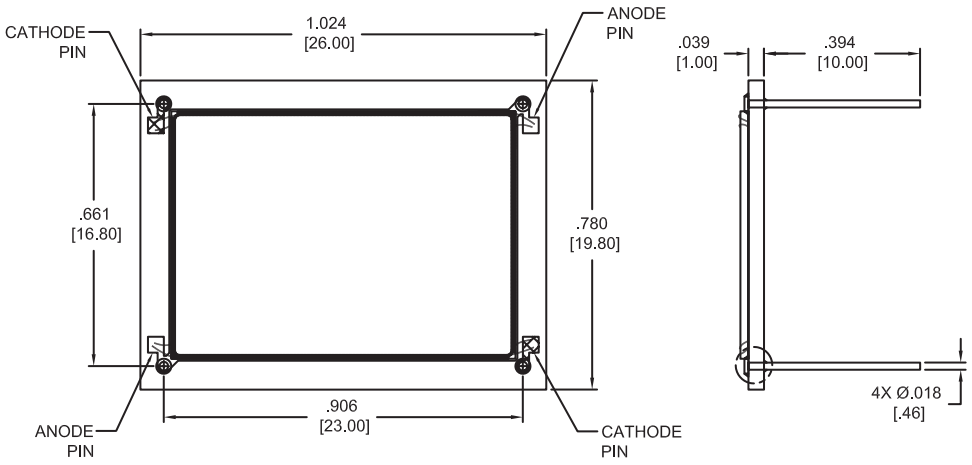
Typical EUV-UV Photon Response



Typical UV-VIS-NIR Photon Responsivity



Package Information

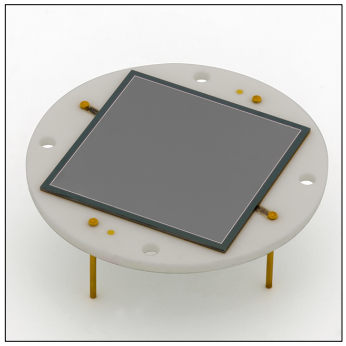


Dimensions are in inch [metric] units.

Specifications are subject to change without prior notice.

Electron Detection 576 mm²

AXUV576C



FEATURES

- Square Active Area
- Round 4-Pin Package
- Ideal for Electron Detection

Electro-Optical Characteristics at 25 °C

Parameters	Test Conditions	Min	Typ	Max	Units
Active Area	24.01 mm x 24.01 mm		576.5		mm^2
Responsivity	(see graphs on next page)				
Shunt Resistance, Rsh	@ ±10 mV	5	50		MΩ
Reverse Breakdown Voltage, V_R	I_R = 1 µA	5			Volts
Capacitance, C	V_R = 0 V		5	15	nF
Rise Time, tr	V_R = 10 V, R_L = 50 Ω			50	usec

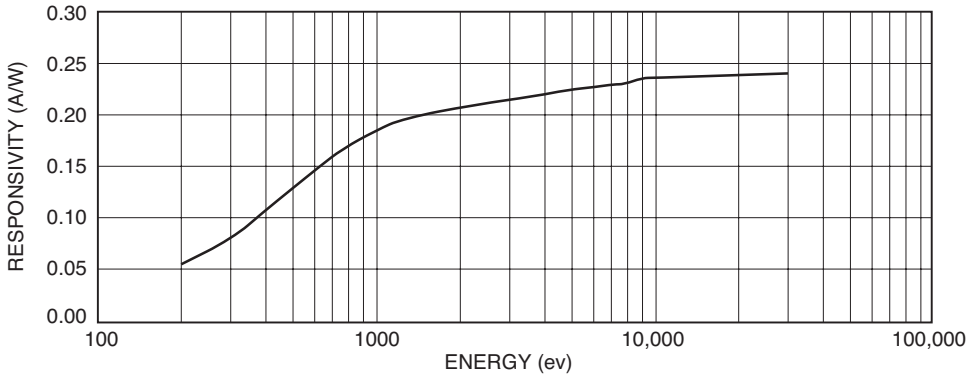
Thermal Parameters

Storage and Operating Temperature Range	Units
Ambient[1]	-10° to 40°C
Nitrogen or Vacuum	-20°C to 80°C
Lead Soldering Temperature[2]	260°C

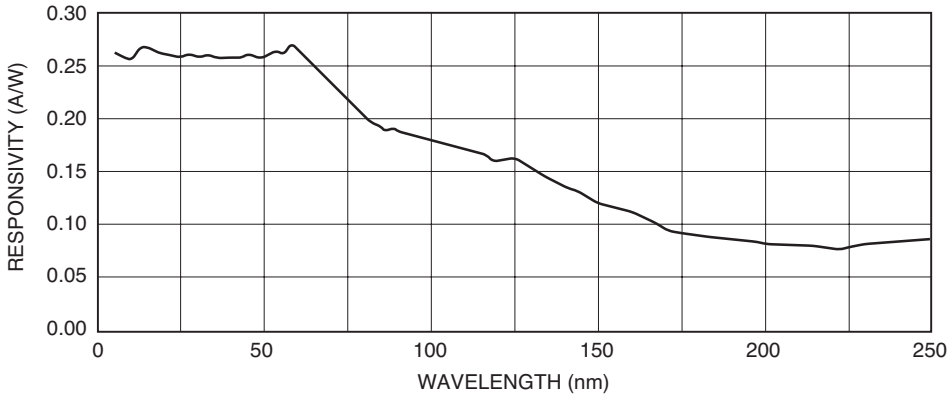
[1] Temperatures exceeding these parameters may create oxide growth on the active area.
Over time responsivity to low energy radiation and wavelengths below 150 nm will be compromised.

[2] 0.080" from case for 10 seconds.

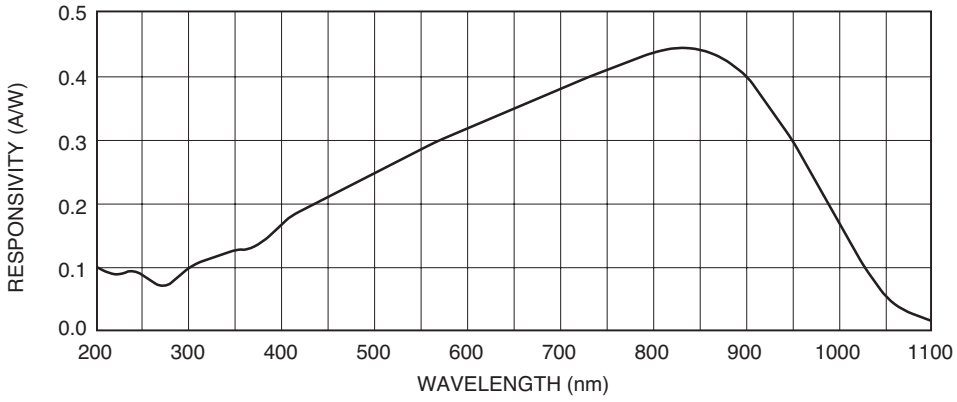
Typical Electron Response



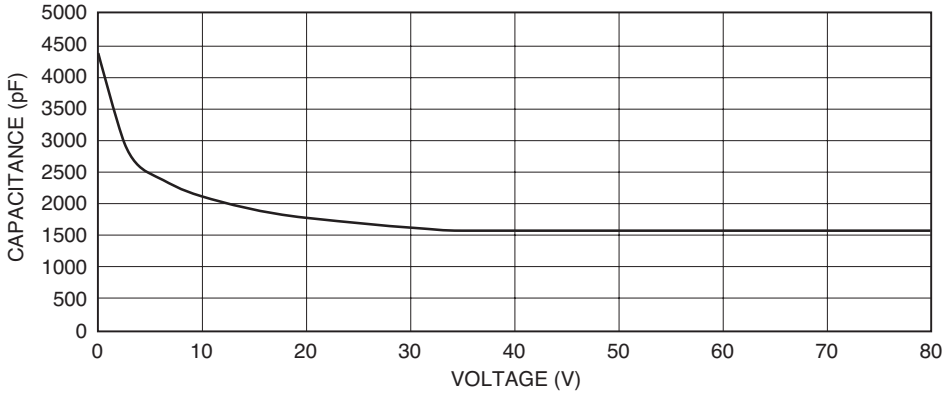
Typical EUV-UV Photon Response



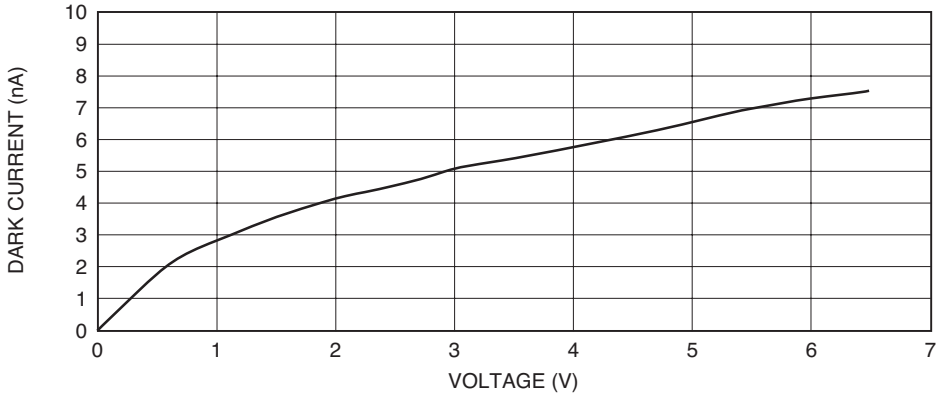
Typical UV-VIS-NIR Photon Responsivity



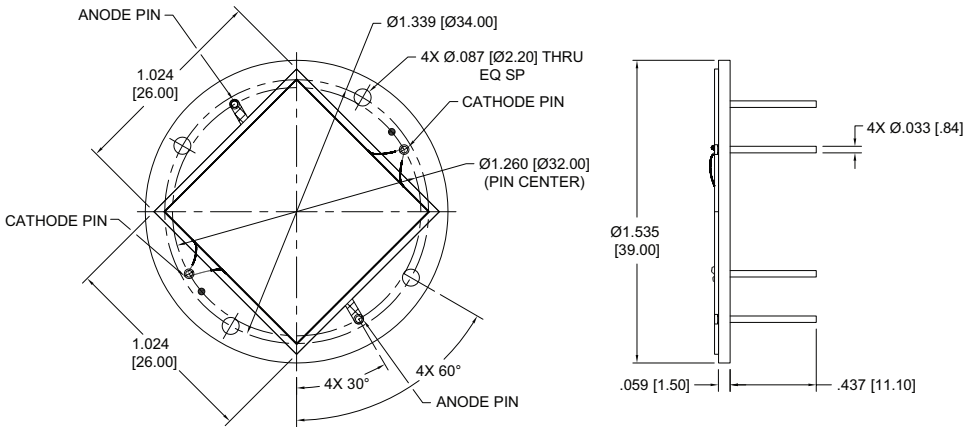
Capacitance vs. Voltage



Dark Current vs. Voltage



Package Information



Dimensions are in inch [metric] units.

Specifications are subject to change without prior notice.