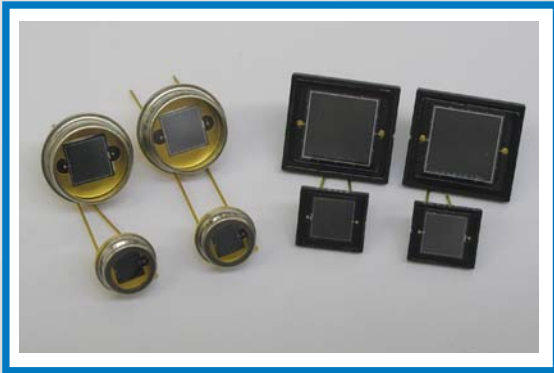


new UV Enhanced, Suppressed NIR Photodiode



OSI optoelectronics introduces new family of Planar Diffused UV Enhanced Photodiode: the UV-EQ and UV-EQC Series. The new Silicon is processed for enhanced responsivity over 200-400nm and sensitivity down to 190 nm. Their response in NIR region has been suppressed. The EK series offer hermetic package alternative at a lower cost and is sensitive down to 320nm.

These detectors can be reverse biased for lower capacitance, faster response, and wider dynamic range applications. They are ideal for UV Spectrophotometer, Analytical Instruments, and Medical Instrumentation.

FEATURES

- Excellent UV Sensitivity
- Suppressed NIR Response
- High Shunt Resistance

APPLICATIONS

- Spectrophotometer
- Analytical Instruments
- Medical Instrument



Typical Electro-Optical Specifications at T_A = 23° C

Model Number	Active Area		Peak Wavelength (nm)	Responsivity (A/W)			Capacitance (pF)	Shunt Resistance (GOhm)		NEP (W/sqrtHz)	Reverse Voltage (V)	Rise Time (us)		Temp. Range (°C)		Package Style
	Area (mm ²)	Dimension (mm)		200 nm	633 nm	720 nm		0V	-10mV			0V 200nm	0V 1KOhm	Operating	Storage	
Metal Package, Quartz Window																
UV-005EQ	5.7	2.4 x 2.4	720	0.12	0.34	0.36	140	2	20	8.2 E-15	5	0.5	-20 ~ +60	-55 ~ +80		2 / T05
UV-013EQ	13	3.6 x 3.6					280	1	10	1.1 E-14		1				2 / T05
UV-035EQ	34	5.8 x 5.8					800	0.5	5	1.6 E-14		2				3 / T08
Ceramic Package, Quartz Window																
UV-005EQC	5.7	2.4 x 2.4	720	0.12	0.34	0.36	140	2	20	8.2E-15	5	0.5	-20 ~ +60	-20 ~ +80		4 / Ceramic
UV-035EQC	34	5.8 x 5.8					800	0.5	5	1.6 E-14		2				
UV-100EQC	100	10 x 10					2500	0.2	2	2.6E-14		7				
Metal Package, Borosilicate Window¶																
UV-005EK	5.7	2.4 x 2.4	720	--	0.34	0.36	140	2	20	8.2 E-15*	5	0.5	-40 ~ +100	-55 ~ +125		2 / T05
UV-013EK	13	3.6 x 3.6					280	1	10	1.1 E-14*		1				2 / T05
UV-035EK	34	5.8 x 5.8					800	0.5	5	1.6 E-14*		2				3 / T08

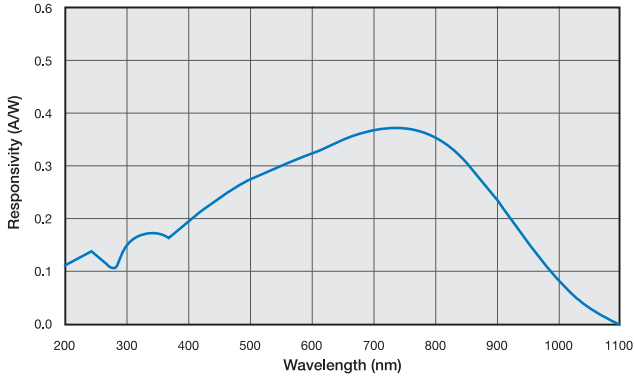
*) NEP is calculated using typical responsivity 0.12 A/W at 320nm

¶) Sensitivity range: 320-1100 nm

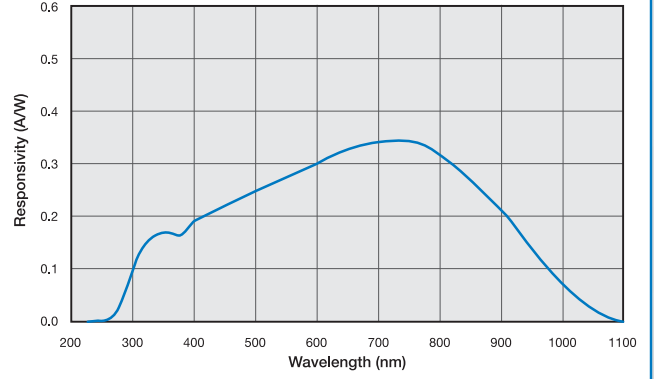
UV-EQ / EQC / EK SERIES

UV Enhanced, Suppressed NIR Photodiode

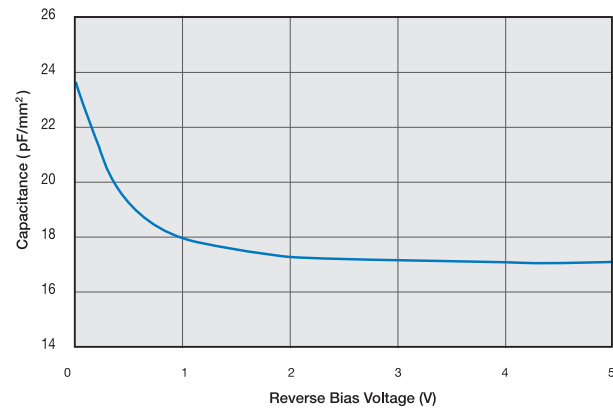
■ Typ. Responsivity with Quartz Window ($T_A = 25^\circ\text{C}$)



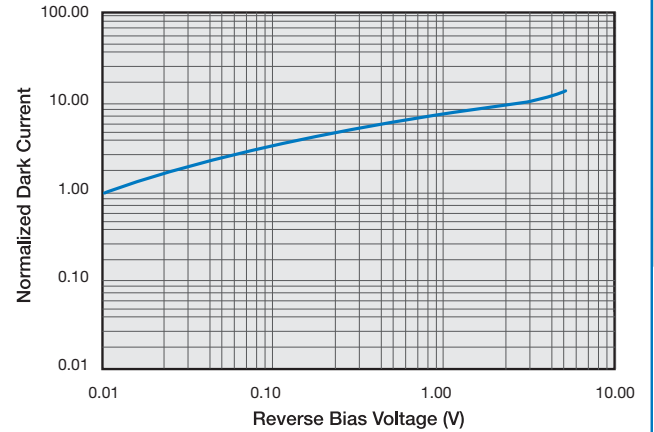
■ Typ. Responsivity with Borosilicate Window ($T_A = 25^\circ\text{C}$)



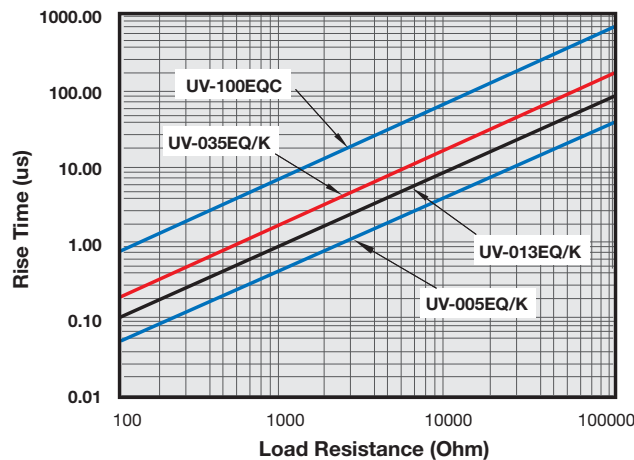
■ Typ. Capacitance vs. Reverse Bias ($T_A = 25^\circ\text{C}$)



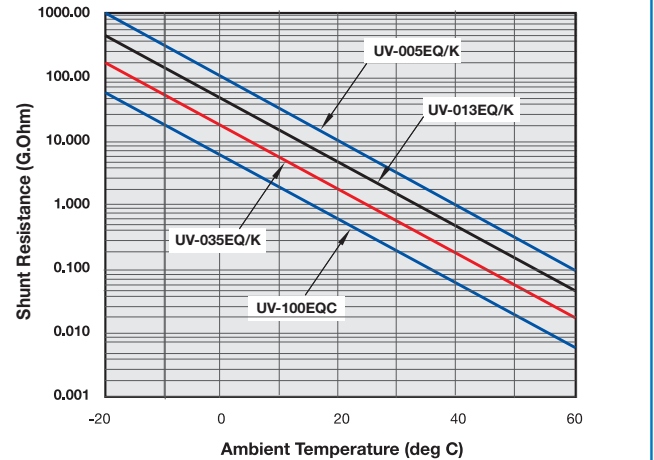
■ Typ. Dark Current vs. Reverse Bias ($T_A = 25^\circ\text{C}$, Normalized at -0.01v)



■ Typ. Rise Time vs. Load Resistance ($T_A = 25^\circ\text{C}$, $V_r = 0\text{V}$)



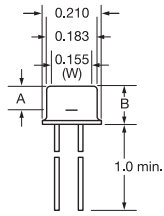
■ Typ. Shunt Resistance vs. Ambient Temperature



MECHANICAL SPECIFICATIONS

All units in inches. Pinouts are bottom view.

1 TO-18



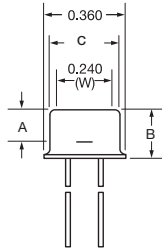
Products:
UV-001D



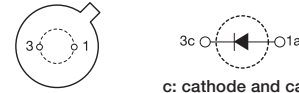
Pin Circle Dia.=0.100 c: cathode and case

Model #	A	B
UV-001D	0.080	0.200

2 TO-5



Products:
UV-005D
UV-013D
UV-005E
UV-013E
UV-005DQ/K
UV-013DQ/K
UV-005EQ/K
UV-013EQ/K

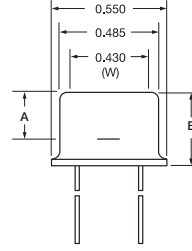


c: cathode and case

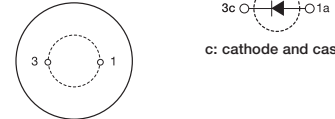
Pin Circle Dia.=0.200

Model #	A	B	C
UV-xxxD	0.102	0.180	0.325
UV-xxxE	0.102	0.180	0.325
UV-xxxDQ/K	0.065	0.138	0.320
UV-xxxEQ/K	0.055	0.138	0.320

3 TO-8



Products:
UV-035D
UV-035E
UV-035DQ/K
UV-035EQ/K

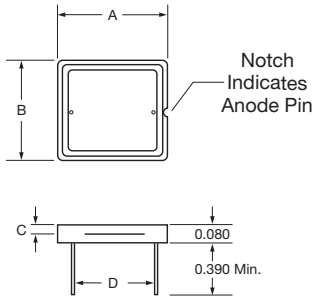


c: cathode and case

Pin Circle Dia.=0.295

Model #	A	B
UV-035D	0.140	0.205
UV-035E	0.140	0.205
UV-035DQ/K	0.130	0.195
UV-035EQ/K	0.120	0.195

4 Ceramic



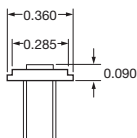
Dimensions

P/N	A	B	C	D
UV-005EC	0.400	0.350	0.030	0.290
UV-035EC	0.400	0.350	0.030	0.290
UV-100EC	0.650	0.590	0.050	0.500
UV-005DC	0.400	0.350	0.030	0.290
UV-035DC	0.400	0.350	0.030	0.290
UV-100DC	0.650	0.590	0.050	0.500
XUV-50C	0.650	0.590	0.027	0.490
XUV-100C	0.650	0.590	0.027	0.490

Dimensions

P/N	A	B	C	D
UV-005EQC	0.300	0.236	0.024	0.177
UV-035EQC	0.400	0.350	0.028	0.290
UV-100EQC	0.650	0.590	0.028	0.500
UV-005DQC	0.300	0.236	0.035	0.177
UV-035DQC	0.400	0.350	0.039	0.290
UV-100DQC	0.650	0.590	0.039	0.500

5 TO-5



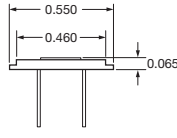
Products:
XUV-005



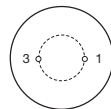
Pin Circle Dia.=0.200



6 TO-8



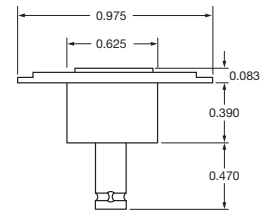
Products:
XUV-020
XUV-035



Pin Circle Dia.=0.295



7 BNC



Products:
XUV-100

BNC Connector
Outer Contact = Cathode