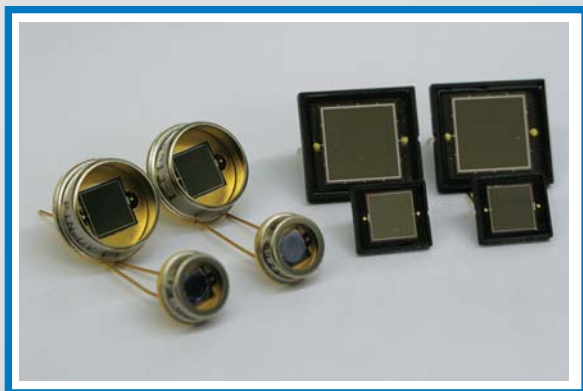


new

UV-DQ / DQC / DK SERIES Planar Diffused UV Enhanced Photodiode



OSI optoelectronics introduces new family of Planar Diffused UV Enhanced Photodiode: the UV-DQ and UV-DQC Series. The new Silicon is processed for enhanced responsivity over 200-400nm and sensitivity down to 190nm. The DK 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
- Low Capacitance
- 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/√srHz)	Reverse Voltage (V)	Rise Time (us)	Temp. Range (°C)		Package Style
	Area (mm ²)	Dimension (mm)		200 nm	633 nm	980 nm		0V	-10mV				0V	Operating	
				typ.	typ.	typ.		typ.	min.			typ.	typ.		

Metal Package, Quartz Window

UV-005DQ	5.7	2.4 x 2.4	980	0.12	0.33	0.5	65	0.3	1	3.6 E-14	5	0.2	-20 ~ +60	-55 ~ +80	2 / T05
UV-013DQ	13	3.6 x 3.6					150	0.2	0.8	4.1 E-14		0.5			2 / T05
UV-035DQ	34	5.8 x 5.8					380	0.1	0.4	5.8 E-14		1			3 / T08

Ceramic Package, Quartz Window

UV-005DQC	5.7	2.4 x 2.4	980	0.12	0.33	0.5	65	0.3	1	3.6 E-14	5	0.2	-20 ~ +60	-20 ~ +80	4 / Ceramic
UV-035DQC	34	5.8 x 5.8					380	0.1	0.4	5.8 E-14		1			
UV-100DQC	100	10 x 10					1100	0.04	0.2	8.2 E-14		3			

Metal Package, Borosilicate Window¶

UV-005DK	5.7	2.4 x 2.4	980	--	0.33	0.5	65	0.3	1	3.6 E-14*	5	0.2	-40 ~ +100	-55 ~ +125	2 / T05
UV-013DK	13	3.6 x 3.6					150	0.2	0.8	4.1 E-14*		0.5			2 / T05
UV-035DK	34	5.8 x 5.8					380	0.1	0.4	5.8 E-14*		1			3 / T08

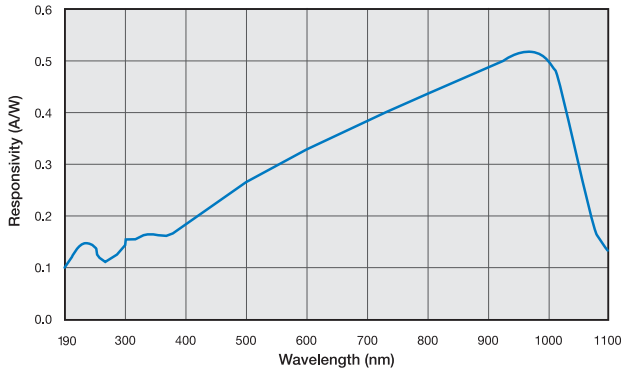
*) NEP is calculated using typical responsivity 0.12 A/W at 320nm

¶) Sensitivity range: 320-1100 nm

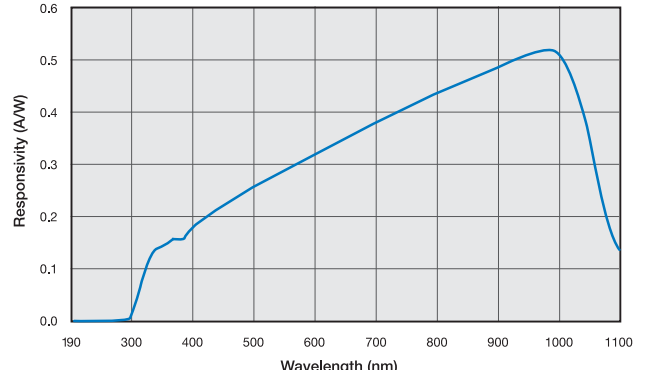
UV-DQ / DQC / DK SERIES

Planar Diffused UV Enhanced Photodiode

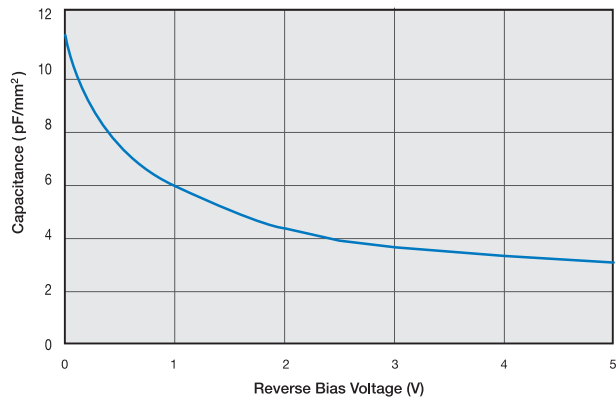
■ Typ. Responsivity with Quartz Window ($T_A = 25^\circ\text{C}$)



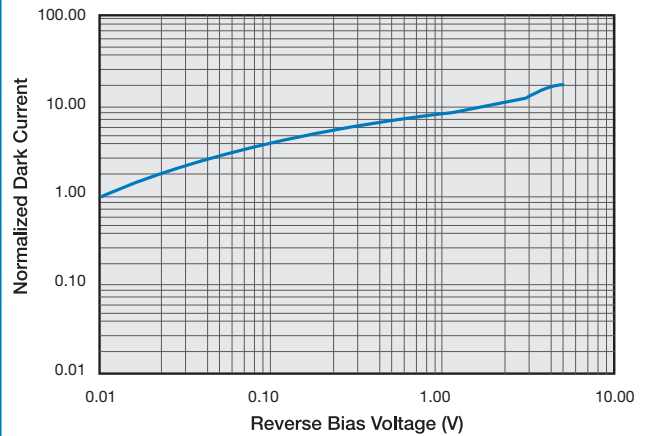
■ Typ. Responsivity with Borosilicate Window ($T_A = 25^\circ\text{C}$)



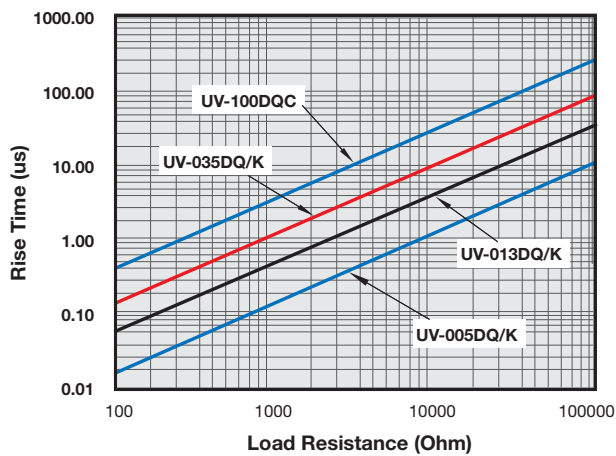
■ Typ. Capacitance vs. Reverse Bias ($T_A = 25^\circ\text{C}$)



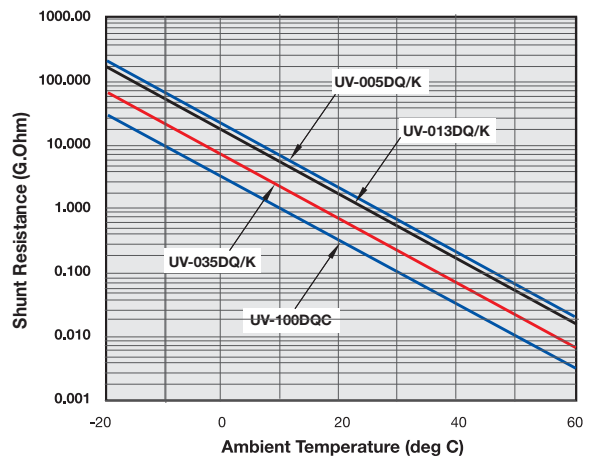
■ Typ. Dark Current vs. Reverse Bias ($T_A = 25^\circ\text{C}$, Normalized at -0.01V)



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



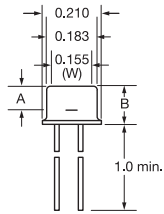
■ Typ. Shunt Resistance vs. Ambient Temperature



MECHANICAL SPECIFICATIONS

All units in inches. Pinouts are bottom view.

1 TO-18



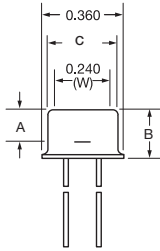
Products:
UV-001D



Pin Circle Dia.=0.100 c: cathode and case

Model #	A	B
UV-001D	0.080	0.200

2 TO-5



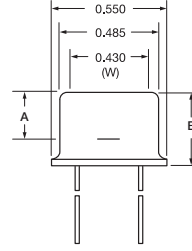
Products:
UV-005D
UV-013D
UV-005E
UV-013E
UV-005DQ/K
UV-013DQ/K
UV-005EQ/K
UV-013EQ/K



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



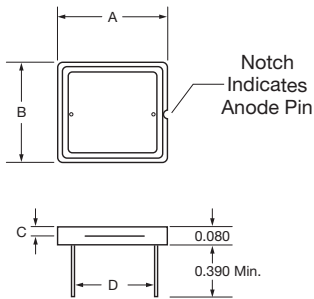
Products:
UV-035D
UV-035E
UV-035DQ/K
UV-035EQ/K



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

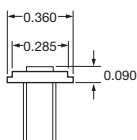
4 Ceramic



P/N	Dimensions			
	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

P/N	Dimensions			
	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



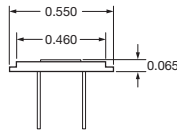
Products:
XUV-005



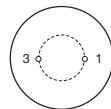
Pin Circle Dia.=0.200



6 TO-8



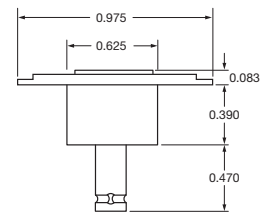
Products:
XUV-020
XUV-035



Pin Circle Dia.=0.295



7 BNC



Products:
XUV-100

BNC Connector
Outer Contact = Cathode

OSI Optoelectronics, a division of OSI Systems, has over 40 years of experience in providing the highest performance standard and custom optoelectronics devices for industrial, security, military, aerospace and medical industries. We take pride in our extensive engineering solutions aligned with efficient manufacturing. With our growing base of customer support we have expanded into new product arenas and application domains. OSI Optoelectronics carries on these market driven ideas in being the largest and most counted on manufacturer of optoelectronics products.



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 MIL-STD-750 Compliant

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 GR-1221-CORE Compliant
 GMP Compliant
 CE Marking Certification
 AQAP-110 Registered
 IEC-68, DEF-07-XXX Registered
 RoHS Compliant

OSI Optoelectronics
 An OSI Systems Company

WORLDWIDE OPERATIONS

HEADQUARTERS
OSI Optoelectronics
 12525 Chadron Ave
 Hawthorne, CA 90250
 USA
 Tel: +1 310-978-0516
 Fax: +1 310-644-1727

**OPTOELECTRONICS
 MANUFACTURING SERVICES**

OSI Optoelectronics Sdn. Bhd.
 No. 6, Jalan Angkasa Mas 1,
 81100 Johor Bahru
 Johor, Malaysia

OSI Optoelectronics Pvt. Ltd.
 Industrial Development Area
 Plot No.1 & 9, Phase II
 Cherlapalli, Hyderabad
 AP 500051
 India

**ELECTRONICS
 MANUFACTURING SERVICES**

OSI Electronics
 2385 E. Pleasant Valley Road
 Camarillo, CA 93012
 USA
 Tel: +1 805-499-6877
 Fax: +1 805-499-4072

OSI Electronics
 25 Commerce Way
 North Andover, MA 01845
 USA
 Tel: +1 978-682-8787
 Fax: +1 978-682-3399

OSI Electronics (S) Pte. Ltd.
 65A Jalan Tenteram #04-13
 St. Michaels Industrial Estate
 Singapore 328958

P.T. OSI Electronics
 Cammo Industrial Park Block F No 3A
 Batam Centre, Batam, Indonesia

ONLINE
 E-mail: info@osioptoelectronics.com
www.osioptoelectronics.com