

UV Series: Multi-Element

Features

- Cross Talk < 1% Between Elements
- Linearity Over Wide Dynamic Range
- Flat Noise Spectrum to DC
- Oxide Passivated Structure
- Wide Spectral Range
- Planar Diffused
- Low Noise
- Peak Responsivity:
0.62 A/W at 900 Nanometers
- UV Responsivity:
0.14 A/W at 254 Nanometers

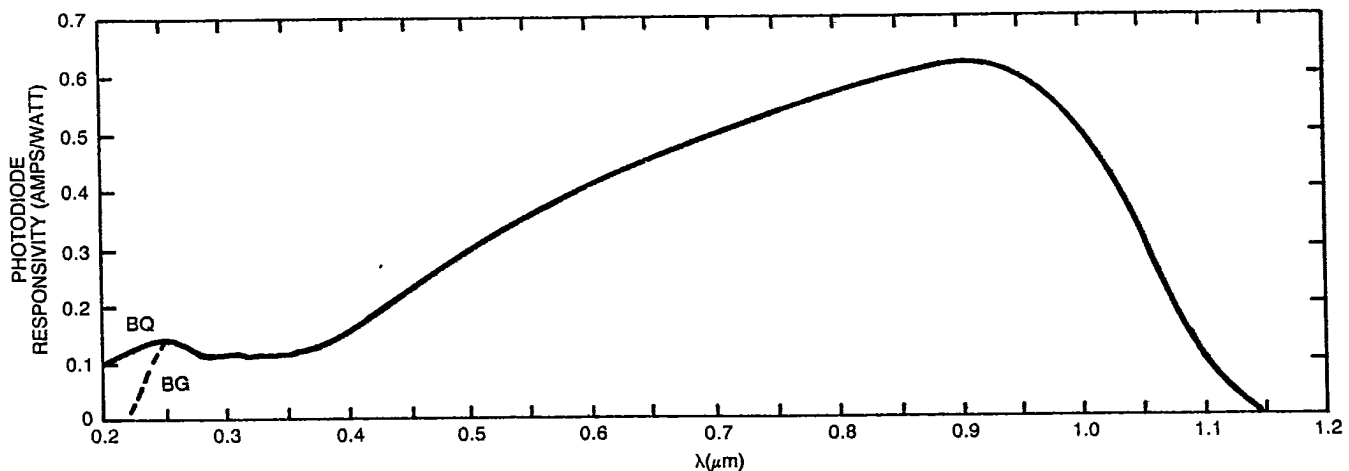
Operating Data and Specifications at 23°C: Typical Performance at 0 V Bias

Characteristic	UV-100BG Dual UV-100BQ Dual	UV-140BQ-2	UV-140BQ-4	Units
Active Area ¹	5.1	3.2	1.6	Sq. mm
Spectral Range	←————→	250-1150	←————→	nm (BG) nm (BQ)
Responsivity	0.62	0.62	0.62	A/W at 900 nm
Responsivity	0.14	0.14	0.14	A/W at 254 nm
Responsivity ²	0.08	0.08	0.08	A/W at 200 nm
Capacitance	150	68	34	pF
Shunt Resistance	>100	>100	>100	Megohms
Noise Current	15	15	15	10 ⁻¹⁵ A/Hz ^{1/2}
NEP (900,10,1)	2.5	2.5	2.5	10 ⁻¹⁴ W/Hz ^{1/2}
NEP (200,10,1)	18	18	18	10 ⁻¹⁴ W/Hz ^{1/2}
Response Linearity	<1%	<1%	<1%	Over 7 decades
Surface Uniformity	<1%	<1%	<1%	With 0.18 mm Spot at 633 nm
Cross Talk	<1%	<1%	<1%	At 633 nm
Temperature Coefficient of:				
Response (900 nm)	←————→	+0.03	←————→	%/°C
Response (350 nm)	←————→	-0.01	←————→	%/°C
Response (200 nm)	←————→	-0.18	←————→	%/°C
Shunt Resistance	←————→	-12	←————→	%/°C
Operating Temperature	←————→	-55 to +125	←————→	°C (BG)
	←————→	-55 to +70	←————→	°C (BQ)
Package Style	TO-8	TO-5	TO-5	

Notes

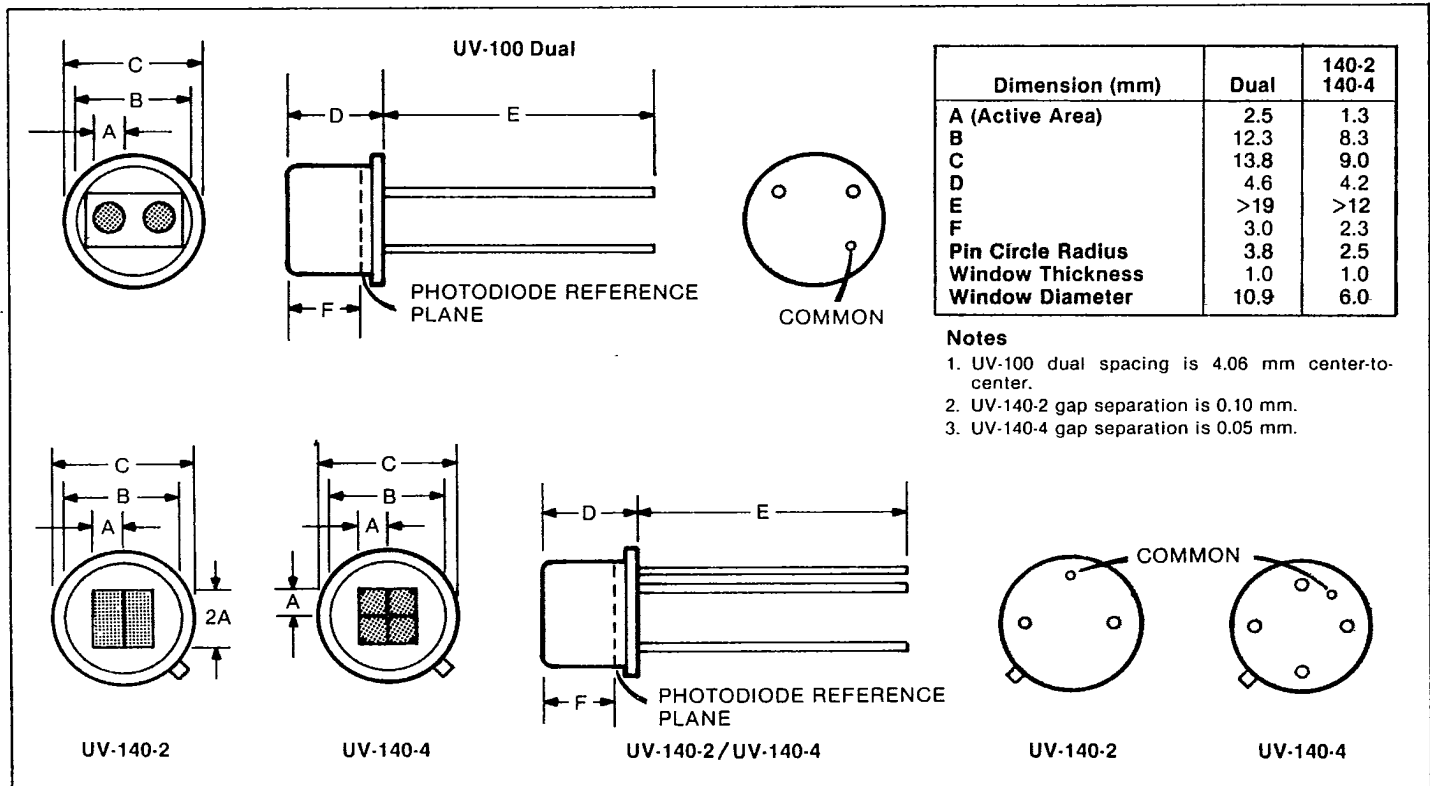
1. Active Area and all characteristics are listed per element.
2. Applicable only to units with BQ suffix

Typical Spectral Response

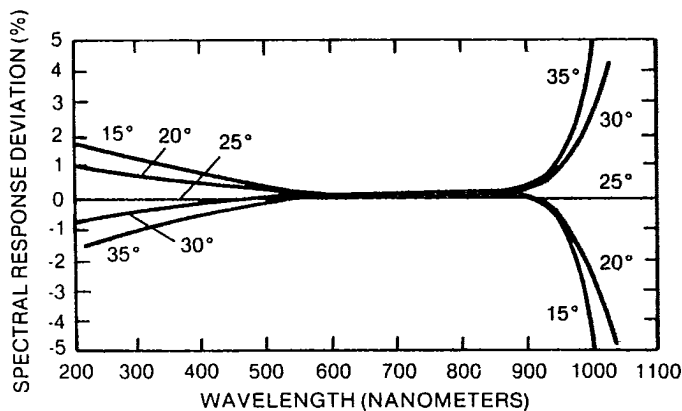


Dual Element, Bi-Cell, and Quadrant Detectors

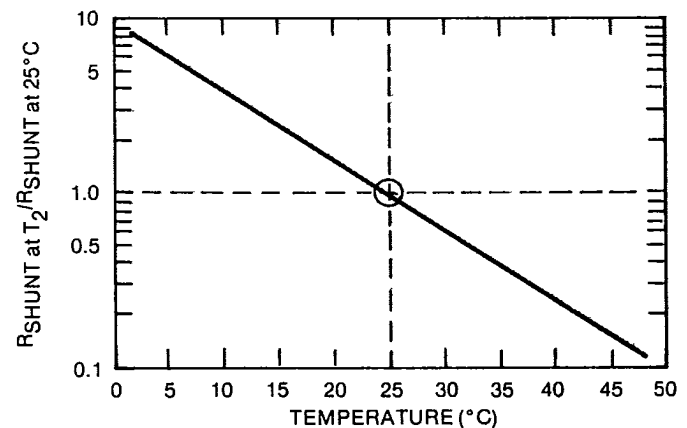
Mechanical Data and Pin Configurations



Typical deviation of responsivity
with temperature



Typical shunt resistance change with
temperature



EG&G PHOTON DEVICES

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