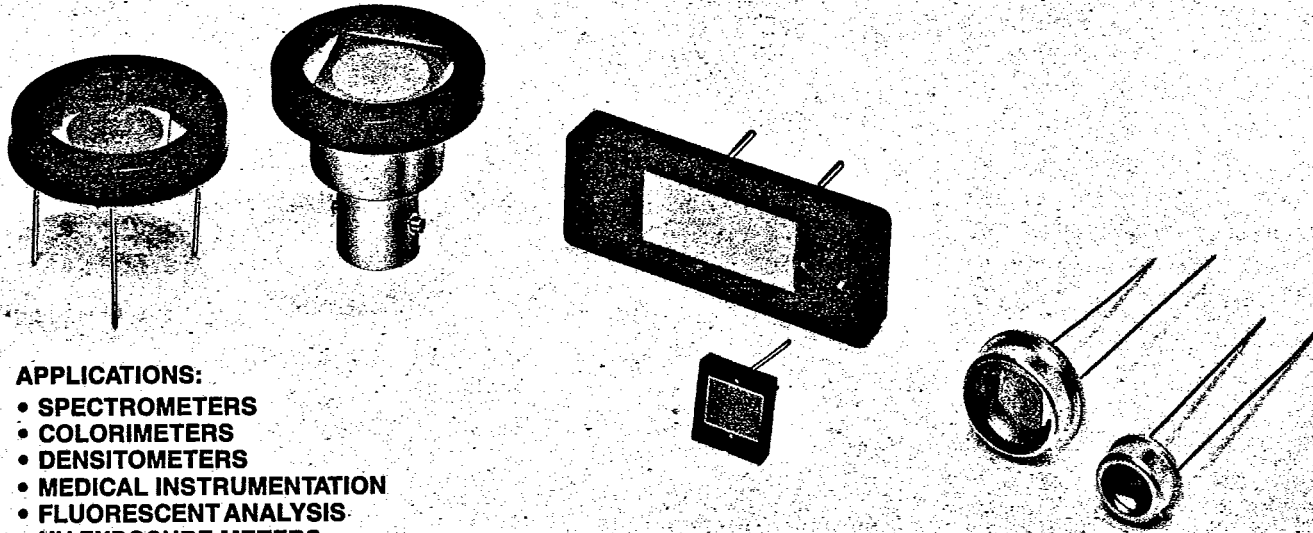
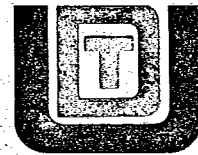


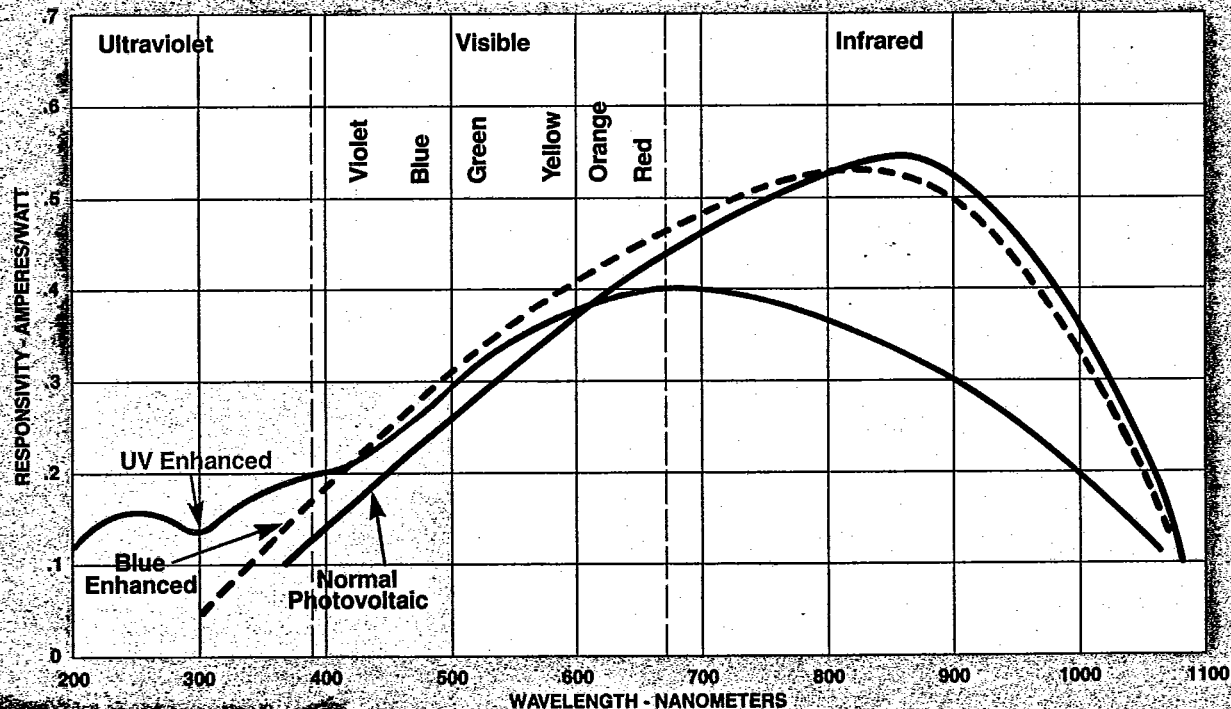
UV/BLE SILICON PHOTODIODES



APPLICATIONS:

- SPECTROMETERS
- COLORIMETERS
- DENSITOMETERS
- MEDICAL INSTRUMENTATION
- FLUORESCENT ANALYSIS
- UV EXPOSURE METERS
- UV CHEMICAL ANALYSIS
- LABORATORY STANDARDS

SPECTRAL RESPONSE



UV/Blue Silicon Photodiodes

Recent advancements in UDT silicon photodiode technology have made possible greatly increased performance and stability in the UV/Blue spectral range.

Two families of devices are available from UDT; blue enhanced, optimized for operation in the range of 300 to 500 nanometers; and inverted channel UV enhanced, optimized for 200 to 400 nanometer use.

The inverted channel structure of UDT UV enhanced photodiodes provides resistance to damage from high energy UV irradiance.

UV exposure tests performed by UDT and other respected laboratories have proven that UDT UV enhanced photodiodes have the highest reliability and stability of any devices now available.



BLUE ENHANCED PLANAR SI

TYPICAL CHARACTERISTICS (AT 22°C)

Model Number	Active Area (cm ²)	Package Type	Responsivity (A/W)	W
PIN-5DP/SB	.051	TO-5	0.16	@
PIN-10DP/SB	1.0	BNC	0.16	@
PIN-10DP-I/SB	1.0	Isolated Low Profile	0.16	@
UDT-220/SB	2.0	1x2cm Plastic	0.16	@

UDT blue enhanced detectors are optimized for near UV to visible (300 to 500nm) to provide optimized signal-to-noise ratio over a wide dynamic range.



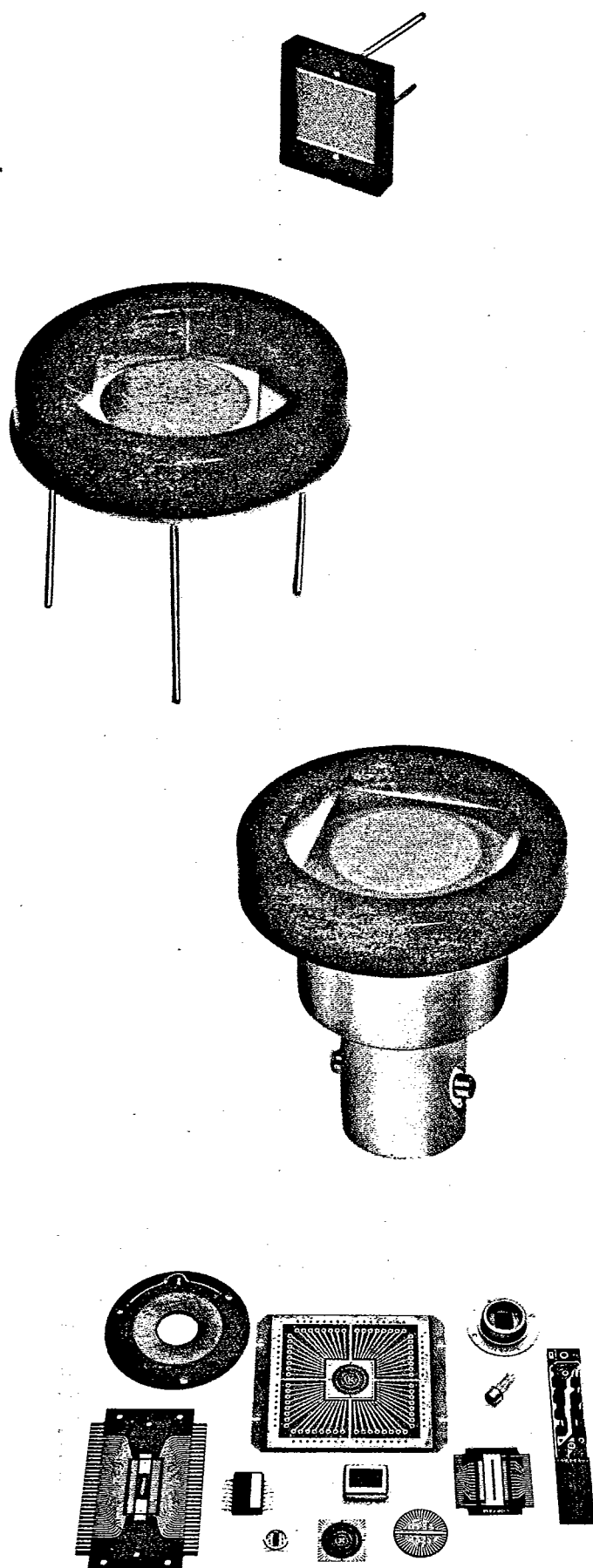
INVERTED CHANNEL UV EN

TYPICAL CHARACTERISTICS (AT 22°C)

Model Number	Active Area (cm ²)	Package Type	Responsivity (A/W)	W
UDT-UV005	.051	TO-5	0.15	@
UDT-UV20	0.2	TO-8	0.15	@
UDT-UV35	0.35	TO-8	0.15	@
UDT-UV35P	0.35	Plastic TO-8	0.15	@
UDT-UV50	0.5	BNC	0.15	@
UDT-UV50L	0.5	Isolated Low Profile	0.15	@
UDT-UV100	1.0	BNC	0.15	@
UDT-UV100L	1.0	Isolated Low Profile	0.15	@

UDT inverted channel UV detectors represent the state-of-the-art in UV devices, both in responsivity (in the 200 to 400nm range), and unparalleled stability under extended exposure to high-intensity UV radiation. All types have quartz windows to minimize loss in the UV spectral range.

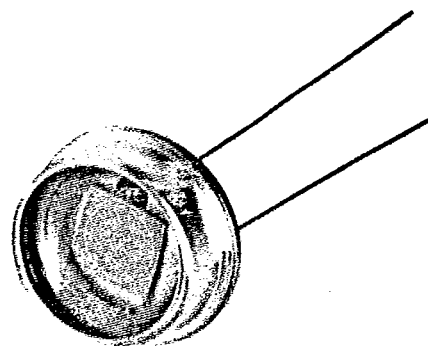
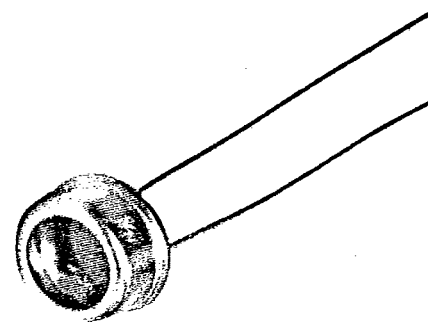
Custom photodiodes, hi-rel devices, special selections, custom multielement arrays and assemblies are all available at competitive prices with a fast turnaround.



SILICON PHOTODIODES

C

wavelength (nm)	C _j @ 0V (pf)	R _{sh} (MΩ)	NEP (w/√Hz)	T _r (μsec)	I _{sat} (mA)
410	450	80	7x10 ⁻¹⁴	0.2	2.0
410	8800	2	4.5x10 ⁻¹⁴	0.5	10.0
410	8800	2	4.5x10 ⁻¹⁴	0.5	10.0
410	17000	0.1	2.5x10 ⁻¹²	2.0	10.0



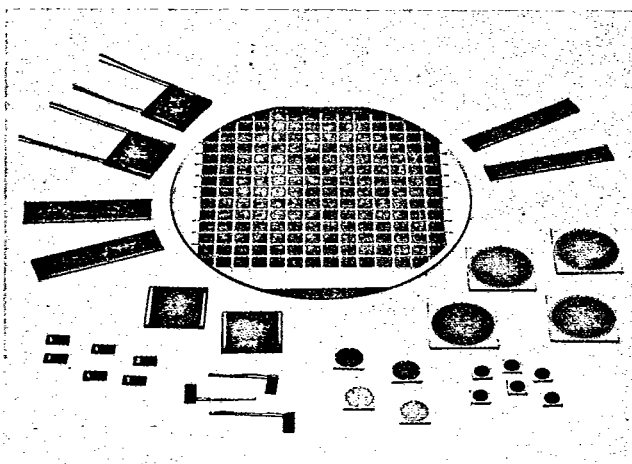
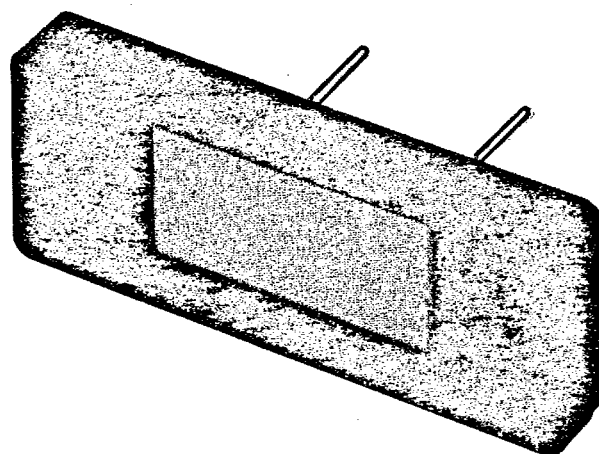
ENHANCED SILICON PHOTODIODES

C

wavelength (nm)	C _j @ 0V (pf)	R _{sh} (MΩ)	NEP (w/√Hz)	T _r (μsec)	I _{sat} * (mA)
254	300	100	8x10 ⁻¹⁴	0.9	0.2
254	1000	50	10 ⁻¹³	2.0	0.2
254	1600	30	1.5x10 ⁻¹³	3.0	0.2
254	1600	30	1.5x10 ⁻¹³	3.0	0.2
254	2500	20	1.8x10 ⁻¹³	3.5	0.2
254	2500	20	1.8x10 ⁻¹³	3.5	0.2
254	4500	10	2.5x10 ⁻¹³	5.9	0.4
254	4500	10	2.5x10 ⁻¹³	5.9	0.4

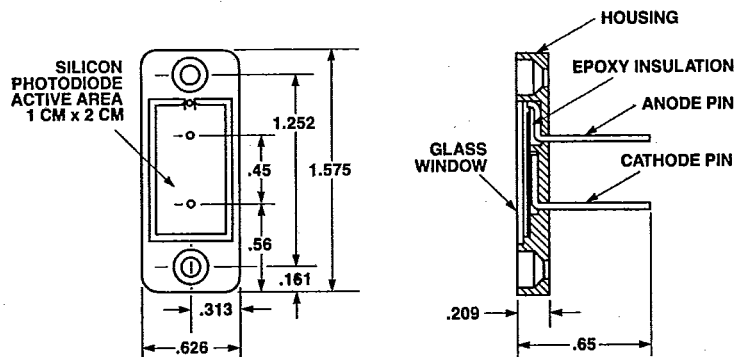
* Saturation current may be increased by a factor of approximately 10 (to 2-4mA) by applying a reverse bias of 2-5 volts. (UV005, 20, 50 & 100 are also available in FIL package. See UDT FIL brochure for package details.)

NOTE: High performance blue and UV enhanced PHOTOPS (Detector/Amplifier Hybrids) are also available from UDT. Contact factory for specifications and pricing.

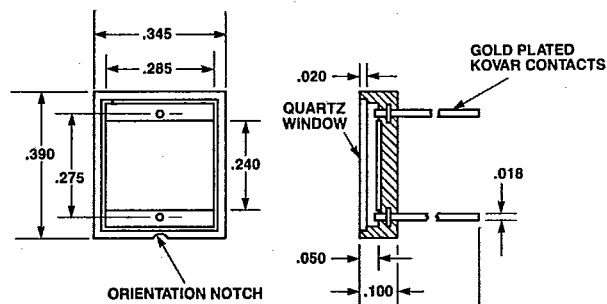


UDT also supplies a complete line of photodiode chips, wafers, solderable chips and chips with lead wires.

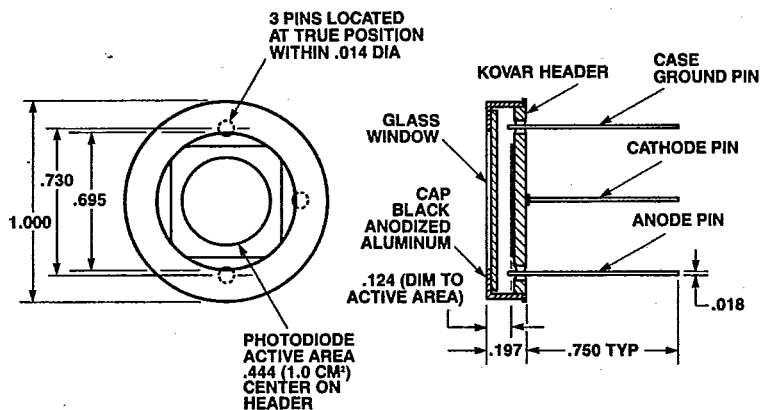
MECHANICAL DETAILS



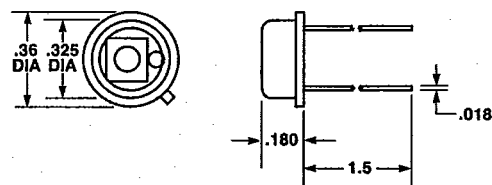
1 x 2cm PLASTIC



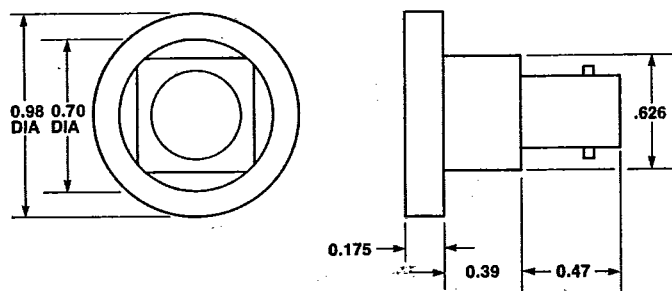
PLASTIC TO-8



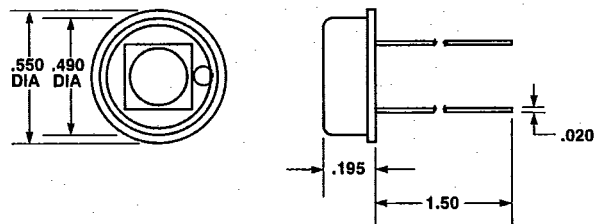
ISOLATED LOW PROFILE



TO-5



BNC



TO-8

Information in this brochure is believed to be accurate and reliable, however, no responsibility is assumed by UDT for its use.



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