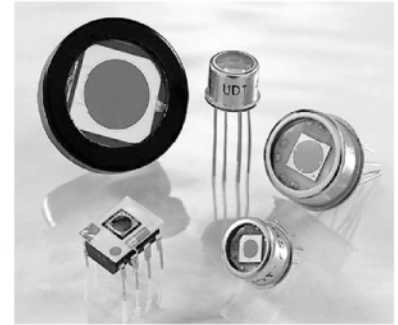


Features

- Detector/Amplifier Combined
- Adjustable Gain/Bandwidth
- Low Noise
- Wide Bandwidth
- DIP Package
- Large Active Area

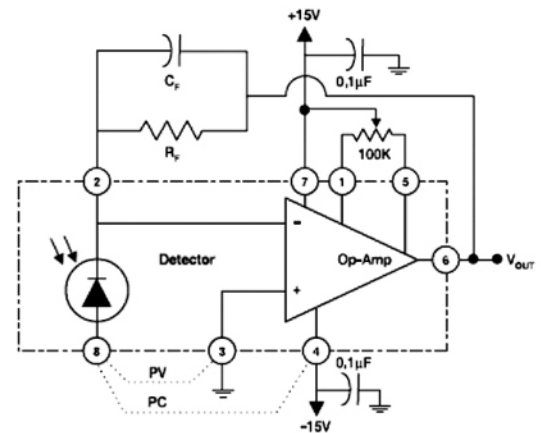
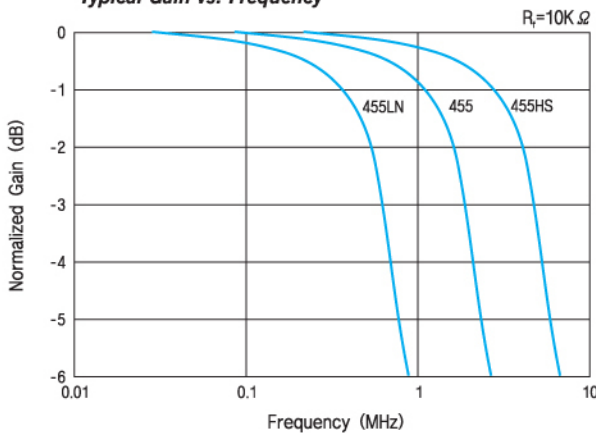
Applications

- General Purpose Light Detection
- Laser Power Monitoring
- Laser Communications
- Industrial Control Sensors
- Pollution Monitoring
- Guidance Systems
- Colorimeter

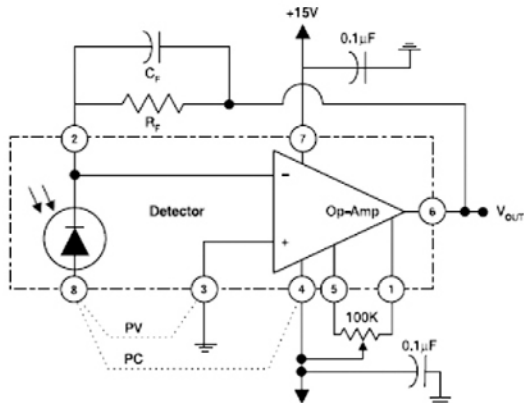


The Photop™ Series, combines a photodiode with an operational amplifier in the same package. Photops™ general-purpose detectors have a spectral range from either 350 nm to 1100 nm or 200 nm to 1100nm. They have an integrated package ensuring low noise output under a variety of operating conditions. These op-amps are specifically selected by Our engineers for compatibility to our photodiodes. Among many of these specific parameters are low noise, low drift and capability of supporting a variety of gains and bandwidths determined by the external feedback components. Operation from DC level to several MHz is possible in an either unbiased configuration for low speed, low drift applications or biased for faster response time. LN-Series Photops™ are to be used with OV-bias. Any modification of the above devices is possible. The modifications can be simply adding a bandpass optical filter, integration of additional chip (hybrid) components inside the same package, utilizing a different op-amp, photodetector replacement, modified package design and/or mount on PCB or ceramic.

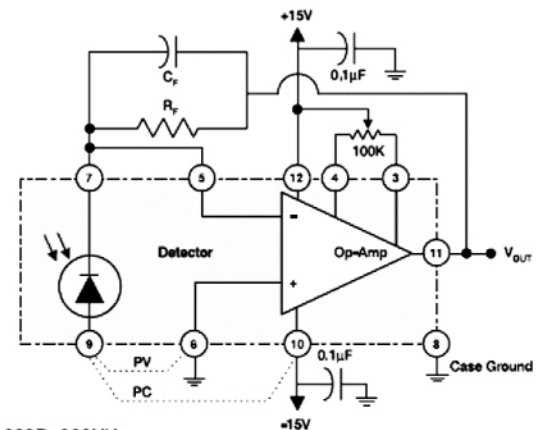
Typical Gain vs. Frequency



UDT-455, 455HS
UDT-555D, 555UV, 055UV



UDT-451, 455LN, 455UV/LN
UDT-555UV/LN



UDT-020D, 020UV

Model Number	Active Area		Responsivity (A/W)		Capacitance (pF)		Dark Current (nA)		Shunt Resistance (M Ω)	NEP (W/ \sqrt Hz)		Reverse Voltage (V)	Temp.* Range (°C)		Package Style
	Area (mm ²)	Dimensions (mm)	254nm		970nm		-10 V			0V	-10V		max.	Operating	
			min.	typ.	min.	typ.	typ.	typ.	typ.	max.	254 nm	970 nm			

350-1100 nm Spectral Range

UDT-451	5.1	2.54 \emptyset	-	0.60	0.65	85	15	0.25	3	-	1.4e-14	30**	0 ~ +70	-30 ~ +100	DIP
UDT-455															TO-5
UDT-455LN**															TO-8
UDT-455HS															Special
UDT-020D	16	4.57 \emptyset				330	60	0.5	10		1.9e-14				TO-8
UDT-555D	100	11.3 \emptyset				1500	300	2	25		3.9e-14				Special

200-1100 nm Spectral Range

UDT-455UV	5.1	2.54 \emptyset	0.10	0.14	-	300	-	-	-	100	9.2e-14	5**	0 ~ +70	-30 ~ +100	TO-5
UDT-455UV/LN**															TO-8
UDT-020UV															Special
UDT-055UV															Special
UDT-555UV	100	11.3 \emptyset				4500				10	2.9e-13				Special
UDT-555UV/LN**															

Operational Amplifier Specifications Typical Electro-Optical Specifications at T_a=23°C

Model Number	Supply Voltage (V)			Quiescent Supply Current (mA)		Input Offset Voltage (mV)		Temp. Coefficient Input offset Voltage (μ V / °C)		Input Bias Current (pA)		Gain Bandwidth Product (MHz)		Slew Rate (V / μ s)		Open Loop Gain, DC (V / mV)		Input Noise Voltage		Input Noise Current
																		100Hz	1 kHz	1 kHz
	min.	typ.	max.	typ.	max.	typ.	max.	typ.	max.	typ.	max.	min.	typ.	min.	typ.	typ.	typ.	typ.		
UDT-451	-	\pm 15	\pm 18	1.4	2.5	3.0	6.0	10	-	30	200	-	4.0	-	13	50	150	-	18	10
UDT-455	-	\pm 15	\pm 18	2.8	5.0	0.5	3	4	30	\pm 80	\pm 400	3.0	5.40	5	9	50	200	20	15	10
UDT-455UV																				
UDT-020D																				
UDT-020UV																				
UDT-455HS	-	\pm 15	\pm 18	4.8	8.0	0.5	3	4	30	\pm 80	\pm 500	11	26	25	40	50	200	20	15	10
UDT-455LN**	\pm 5	\pm 15	\pm 18	0.9	1.8	0.26	1	-	20	0.15	0.3	0.5	1	0.5	3	50	2500	78	27	0.22
UDT-455UV/LN**																				
UDT-055UV	-	\pm 15	\pm 22	2.7	4.0	0.4	1	3	10	\pm 40	\pm 200	3.5	5.7	7.5	11	75	220	20	15	10
UDT-555D																				
UDT-555UV																				

** LN Series Devices are to be used with a 0V Bias.
 * Non-Condensing temperature and Storage Range, Non-Condensing Environment.