

# HIGH-SPEED INTEGRATED PHOTOPS™



## UDT-604 FIBER OPTIC RECEIVER

This product features the high speed performance of the UDT fiber optic series detectors. In addition, the hybrid provides signal amplification using an integral transimpedance amplifier with the feedback components inside, providing the user with sufficient voltage signal output (detector bias internal 5-7 volts).

## UDT-615 FIBER OPTIC RECEIVER

This product features the high speed performance of the UDT large area/high speed photodiodes. The sensor has a large range of optical responsivity in the range of 500-1100 nm, with peak responsivity at 850 nm. In addition, the hybrid device provides signal amplification using a hybrid trans-impedance amplifier with the feedback components integrated inside the package, including the supply line de-coupling capacitors (0.01  $\mu$ f).

### DETECTOR SPECIFICATIONS

Typical at 22°C

MODEL #	ACTIVE SURFACE		CAPACITANCE @ 15V	DARK CURRENT @ 15V	BREAKDOWN VOLTAGE (VOLTS)
	AREA (sq. mm)	DIA (Inches)	pF	nA	10 nA
UDT-604	0.80	1.00	4.5	1.0	50
UDT-615	1.5	0.041 x 0.061	10.0	2.0	50

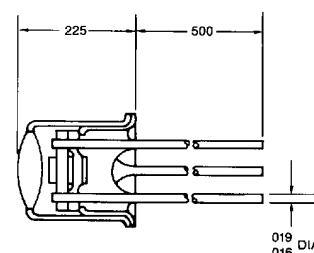
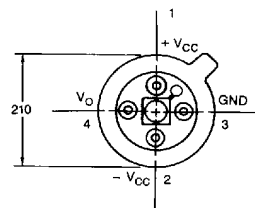
UDT-604 Responsivity is 5 A/W Typ at 830nm @ 5V bias

UDT-615 Responsivity is 5 A/W Typ at 850nm @ 15V bias

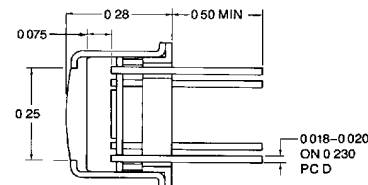
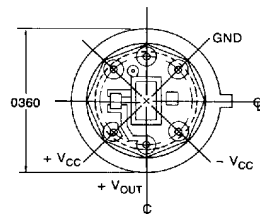
UDT-604 Response Time is measured at 830nm @ 5V bias

UDT-615 Response Time is measured at 850nm @ 15V bias

UDT-604



UDT-615



### HYBRID AMPLIFIER SPECIFICATIONS

Typical at 22°C

MODEL #	SENSITIVITY	CUT-OFF FREQUENCY (-3dB)	RISE/FALL T <sub>r</sub> , T <sub>f</sub>	OUTPUT NOISE VOLTAGE	DC OFFSET VOLTAGE	POWER SUPPLY REQUIREMENTS	QUIESCENT CURRENT
	kV/WATT	MHz	n sec	mV rms	mV P-P	V DC	mA
UDT-604	0.75 min	90	<4	0.20	26.0	± 5 min -7 max	15
UDT-615	1.25 min	70	<5	0.45	62.5	± 15	15