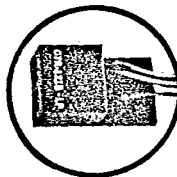
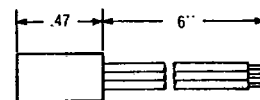
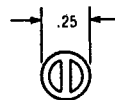


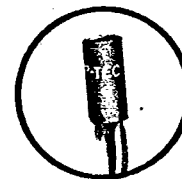
RED/WHITE = +LED
BLACK/WHITE = -LED
RED = V_{CC}
WHITE = V_O
BLACK = GND.
YELLOW = SENSITIVITY ADJ.



Package 3



RED/WHITE = +LED
BLACK/WHITE = -LED
RED = V_{CC}
WHITE = V_O
BLACK = GND.
YELLOW = SENSITIVITY ADJ.



Package 4

LIGHT SENSORS — SERIES OT115, OT116, OT130, OT131, OT132

Schmitt Trigger conditioned amplifiers with either fixed or adjustable sensitivity provides Opto Technology's light sensors with complete subsystem capability. The hybrid light sensors combine the best qualities of silicon photodiodes and phototransistors with highly stable hybrid amplifiers. Our standard light sensors feature low nanosecond rise and fall time for precise switching with optional TTL or open collector positive or negative outputs. Opto Technology's hybrid light sensors are suited for a wide range of light sensing applications in the visible, as well as infrared range. Optional filters (i.e. fluorescent) available upon request.

PART DESCRIPTION

PART NUMBER (1)	THRESHOLD MW/CM ²		Maximum Frequency (KHz)	SENSOR TYPE	OUTPUT Configuration
	H _{th} (Min.)	H _{th} (Max.)			
OT-115S-L (N or P) ⁽²⁾	.5	150	80	Photodiode	LSTTL
OT-115S-C	.5	150	80	Photodiode	Open Collector
OT-116S-L	.005	150	10	Phototransistor	LSTTL
OT-116S-C	.005	150	10	Phototransistor	Open Collector
OT-130S-L	1.0	3.0	80	Photodiode	LSTTL
OT-130S-C	1.0	3.0	80	Photodiode	Open Collector
OT-131S-L	.03	.1	10	Phototransistor	LSTTL
OT-131S-C	.03	.1	10	Phototransistor	Open Collector
OT-132S-L	.01	.03	10	Phototransistor	LSTTL
OT-132S-C	.01	.03	10	Phototransistor	Open Collector

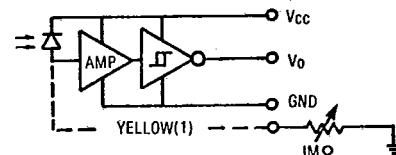
(1) OT-115S & OT-116S Units have adjustable sensitivity

(2) N = Logic Level Low (No Interruption)

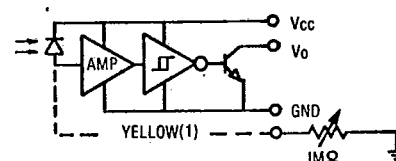
P = Logic Level High (No Interruption)

ABSOLUTE MAXIMUM RATINGS

Supply Voltage, V_{CC}5 to 7V
Operating Temperature Range0°C to 70°C
Storage Temperature Range-55°C to 100°C
Power Dissipation200 MW



LSTTL Output



Open Collector

ELECTRICAL SCHEMATICS

ELECTRICAL CHARACTERISTICS (25° unless otherwise noted)

PARAMETER	TEST CONDITIONS	LSTTL OUTPUT			OPEN COLLECTOR			UNIT
		MIN.	TYP.	MAX.	MIN.	TYP.	MAX.	
V _{OH} High-Level Output Voltage	V _{CC} = 4.75 V, I _{OH} = 400 μA	2.7	3.4					V
V _{OL} Low-Level Output Voltage	V _{CC} = 4.75 V, I _{OL} = 8 mA		.34	.5				V
I _{OH} Low-Level Output Current				400				μA
I _{OL} Low-Level Output Current				8				mA
V _{CE (SAT)} Collector-Emitter Saturation Voltage	I _C = 100 mA					.3		V
V _{CEO} Collector-Emitter Breakdown Voltage	I _C = 10 mA				40			V
t _r & t _f Rise and Fall Time*	C _L = 15 pF, R _L = 2KΩ		15	22		60	150	nS
V _{CC} Supply Voltage		4.75	5	5.25	4.75	5	5.25	V
I _{CC} Supply Current	V _{CC} = 5.25 V		15	25		15	25	mA
Hysteresis			10			10		%

*Output to Ground