

This sensor combines a 12 x 12 photodiode array and three trans-impedance amplifiers in a single monolithic CMOS IC solution. With Red (R), Green (G) and Blue (B) colour filters coated over the photodiode array, the sensor converts R G B light to analogue voltage outputs, denoted by VR_{OUT}, VG_{OUT} and VB_{OUT} respectively. The sensor is driven by a single 5V supply and incorporates an internal 5V to 3.3V voltage regulator. The spectral sensitivity response of the sensor is optimized for RGB-LED backlight applications. The sensor has good detection ability in light output chromaticity drift, when used with closed loop feedback controller, manages to bring the backlight system to realize good du V performance. Potential applications include white point control in emissive display, environmental lighting and colour control in industrial process.

Recommended operating conditions	Min.	Max.	Recommended operating conditions	Min.	Max.
Supply Voltage (V)	4.5	5.5	Rise time (ms)	15 (Typ.)	
Output Voltage Swing (V)		3.0	Fall time (ms)	15 (Typ.)	
Supply Current (mA)	3 (Typ.)		Operating Temperature (°C)	-20	85
Dark Voltage (mV)	15				

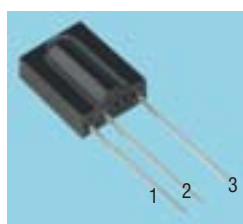
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Mfrs. List No.	Order Code	5+	25+	100+	250+	+
HDJD-S831-QT333	105-8377	2,089.00	1,625.00	1,329.00	1,198.00	--

Infrared Receiver Modules For Remote Control Systems



A1 - Pin 2 = V_s, Pin 3 = GND
A2 - Pin 3 = V_s, Pin 2 = GND
A1 & A2 Pin 1 = OUT



B Pin 1 = GND, Pin 2 = V_s, Pin 3 = OUT



C1 Pin 1 = GND, Pin 2 = NC, Pin 3 = OUT, Pin 4 = V_s
C2 Pin 1 = GND, Pin 2 = GND, Pin 3 = V_s, Pin 4 = OUT

- Photo detector and preamplifier in one package
- Internal filter for PCM frequency
- Improved shielding against electrical field disturbance
- TTL and CMOS compatible
- Output active low

Supply Voltage	Current (Max)	Length (burst)	Burst Data Gap (between bursts)	Bursts (Rx/sec)	Carrier Frequency	Case Style	Mfrs List No.
High Data Rate PCM (20 kbps)							
2.7 to 5.5	5mA	22µs	26µs		455kHz	A2	TSOP7000.
2.7 to 5.5	5mA	22µs	26µs		455kHz	C1	TSOP5700TR.
Short Burst and High Data Rate (4000 bps)							
4.5 to 5.5	5mA	6 cycles/burst	10 cycles	2200 bursts/sec	36kHz	A2	TSOP4136.
4.5 to 5.5	5mA	6 cycles/burst	10 cycles	2200 bursts/sec	38kHz	A2	TSOP4138.
4.5 to 5.5	5mA	6 cycles/burst	10 cycles	2200 bursts/sec	33kHz	B	TSOP1133.
4.5 to 5.5	5mA	6 cycles/burst	10 cycles	2200 bursts/sec	36kHz	B	TSOP1136.
4.5 to 5.5	5mA	6 cycles/burst	10 cycles	2200 bursts/sec	38kHz	B	TSOP1138.
Standard, supporting all major transmission codes							
2.7 to 5.5	3mA	10 cycles/burst	14 cycles	800 bursts/sec	36kHz	A1	TSOP32236.
2.7 to 5.5	3mA	10 cycles/burst	14 cycles	800 bursts/sec	38kHz	A1	TSOP32238.
2.7 to 5.5	3mA	10 cycles/burst	14 cycles	800 bursts/sec	36kHz	A2	TSOP34836.
2.7 to 5.5	3mA	10 cycles/burst	14 cycles	800 bursts/sec	38kHz	A2	TSOP34838.
2.7 to 5.5	3mA	10 cycles/burst	14 cycles	800 bursts/sec	36kHz	C2	TSOP36236TR.
2.7 to 5.5	3mA	10 cycles/burst	14 cycles	800 bursts/sec	38kHz	C2	TSOP36238TR.
4.5 to 5.5	5mA	10 cycles/burst	14 cycles	800 bursts/sec	36kHz	A1	TSOP2236.
4.5 to 5.5	5mA	10 cycles/burst	14 cycles	800 bursts/sec	38kHz	A1	TSOP2238.
4.5 to 5.5	5mA	10 cycles/burst	14 cycles	400 bursts/sec	36kHz	A1	TSOP2436.
4.5 to 5.5	5mA	10 cycles/burst	14 cycles	400 bursts/sec	38kHz	A1	TSOP2438.
4.5 to 5.5	5mA	10 cycles/burst	14 cycles	800 bursts/sec	36kHz	A2	TSOP4836.
4.5 to 5.5	5mA	10 cycles/burst	14 cycles	800 bursts/sec	38kHz	A2	TSOP4838.
4.5 to 5.5	5mA	10 cycles/burst	14 cycles	800 bursts/sec	36kHz	B	TSOP1236.
4.5 to 5.5	5mA	10 cycles/burst	14 cycles	800 bursts/sec	38kHz	B	TSOP1238.
4.5 to 5.5	5mA	10 cycles/burst	14 cycles	800 bursts/sec	36kHz	C2	TSOP6236TR.
4.5 to 5.5	5mA	10 cycles/burst	14 cycles	800 bursts/sec	38kHz	C2	TSOP6238TR.

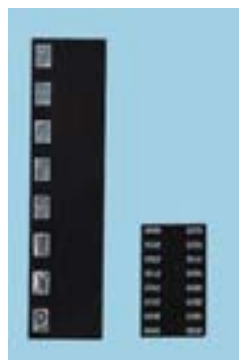
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Mfrs. List No.	Order Code	1+	25+	100+	250+	+
TSOP7000.	491-3231	233.00	208.00	174.00	140.00	--
TSOP5700TR.	491-3206	180.00	160.00	134.00	108.00	--
TSOP4136.	491-3164	78.00	70.00	58.00	47.00	--
TSOP4138.	491-3176	78.00	70.00	58.00	47.00	--
TSOP1133.	491-3012	78.00	70.00	58.00	47.00	--
TSOP1136.	491-3024	78.00	70.00	58.00	47.00	--
TSOP1138.	491-3036	78.00	70.00	58.00	47.00	--
TSOP32236.	491-3103	73.00	66.00	55.00	45.00	--
TSOP32238.	491-3115	73.00	66.00	55.00	45.00	--
TSOP34836.	491-3127	78.00	70.00	58.00	47.00	--
TSOP34838.	491-3139	78.00	70.00	58.00	47.00	--
TSOP36236TR.	491-3140	103.00	92.00	77.00	62.00	--
TSOP36238TR.	491-3152	103.00	92.00	77.00	62.00	--
TSOP2236.	491-3061	74.00	66.00	55.00	45.00	--
TSOP2238.	491-3073	74.00	66.00	55.00	45.00	--
TSOP2436.	491-3085	74.00	66.00	55.00	45.00	--
TSOP2438.	491-3097	74.00	66.00	55.00	45.00	--
TSOP4836.	491-3188	74.00	66.00	55.00	45.00	--
TSOP4838.	491-3190	74.00	66.00	55.00	45.00	--
TSOP1236.	491-3048	74.00	66.00	55.00	45.00	--
TSOP1238.	491-3050	74.00	66.00	55.00	45.00	--
TSOP6236TR.	491-3218	103.00	92.00	77.00	62.00	--
TSOP6238TR.	491-3220	103.00	92.00	77.00	62.00	--

Planar Photodiodes

Solderable Planar Photodiode Arrays

SILONEX



Photodiode arrays are ideal for position sensing applications, this type of array offers the smallest scale package for the usable active area. The solderable contacts allow chip termination without a wire-bonding machine.

Mfrs. List No.	Short circuit current (typ) @ 25mW/cm ²	Open Circuit Voltage (typ)	Dark Current VR=1V (max) µA	Area
SLDA-61S1008	80µA	0.4	3	9.36mm ²
SLDA-61S2508	450µA	0.4	3	76.76mm ²

206641

Mfrs. List No.	Order Code	1+	25+	100+
SLDA-61S1008	121-9001	497.00	416.00	370.00
SLDA-61S2508	121-9002	999.00	838.00	746.00

Light Dependent Resistors

SILONEX



316-8335

316-8347

316-8359

316-8360

327-700

Packaged in either hermetically sealed cans, plastic case or coated in moisture resistant epoxy, light dependant resistors are ideal for day-light sensing and switching applications. They can also be used in position sensing applications. Two active areas are available: TO-8 and TO-18.

Mfrs. List No.	R (Ω) Typ.	R dark (Ω) Min.	Spectral Peak (nm)	V	Order Code
NSL 19M51.	5kR @ 100 lux	20kR ⁽¹⁾	550	100	316-8335
NSL 06S53.	5kR @ 100 lux	20kR ⁽¹⁾	550	100	316-8347
NSL 4962.	17kR @ 1 ftc	1MR ⁽²⁾	515	320	316-8359
NSL 4960.	17kR @ 1 ftc	1MR ⁽²⁾	515	320	316-8360
NORP12.	0.4kR @ 100 ftc	1.0MR	515	320	327-700

⁽¹⁾ after 10 seconds, ⁽²⁾ after 5 seconds
ftc = footcandle

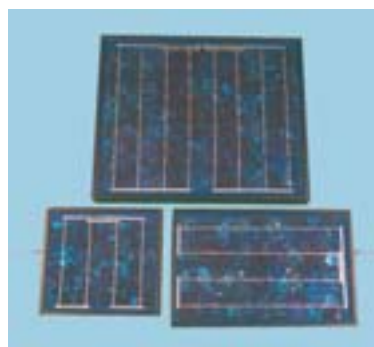
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Mfrs. List No.	Order Code	1+	25+	100+	1K+
NSL 19M51.	316-8335	40.00	35.00	--	--
NSL 06S53.	316-8347	131.00	110.00	96.00	91.00
NSL 4962.	316-8359	60.00	51.00	46.00	43.00
NSL 4960.	316-8360	172.00	144.00	125.00	121.00
NORP12.	327-700	140.00	121.00	120.00	--

Solar Panels

Medium Power Modules

BP Solar



- SX-5, 4.5 watt module
- SX-10, 10 watt module
- SX-20U, 20 watt module
- SX-30U, 30 watt module
- BP-350U, 50 watt module
- 4 metre cable fitted to SX-5 & SX-10
- Large junction box on SX-20, SX-30 & BP-350U
- SX-20 can be configured to 6V or 12V
- Clear-anodised aluminium frame
- Tempered glass/EVA laminate construction

654-024, 654-036, 654-048