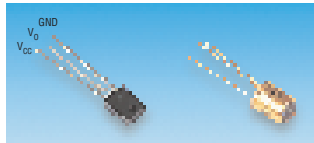


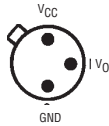
## Emitters & Detectors — Continued

### Optoschmitt Detectors

**Honeywell**



Pins on 2.54 PCD Plastic side viewing 5.7 4.5 2.3  
Metal TO-18 (domed) Pins on 2.54 PCD



Schmitt detectors include amplifier, voltage regulator, Schmitt trigger and output stage for direct interfacing to TTL/LSTTL/CMOS. Light interruption below release point sends output low.

Supply voltage	4.5V – 16V dc
Output sink current	18mA max.
Supply current	6mA typ at zero irradiance 4mA type at 3mW/cm <sup>2</sup> irradiance
Rise/fall time	t <sub>r</sub> 50µs, t <sub>f</sub> 6µs
Operate point (max.)	1.2mW/cm <sup>2</sup> (SDP8600-1), 0.25mW/cm <sup>2</sup> (SD5620-1)
Release point	2.35mW/cm <sup>2</sup> (max.), 0.45mW/cm <sup>2</sup> (typ.)

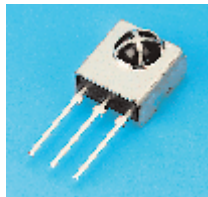
Mfrs. List No. SDP8600-1 = 327-608, SD5620-1 = 327-610

OPT174

Type	Order Code	Price Each			
		1+	25+	100+	250+
Side viewing	<b>327-608</b>				
TO-18 sealed	<b>327-610</b>				

### Remote Control Receiver

**KODENSHI**



1 V<sub>out</sub>  
2 GND  
3 V<sub>cc</sub>  
H = 8.9 (to tab)  
W = 7.4  
D = 4.8

This monolithic infra-red remote control receiver replaces PIC12043S, it is an enhanced version and has improved electromagnetic interference resistance.

The device consists of a photodiode, pre-amplifier and signal processor. It operates at a tuned frequency of 37.9KHz and can be used with a standard infra-red emitter to produce a remote control with a typical range of 10 to 20 metres.

The device has a metal shield to prevent electromagnetic interference and is suitable for many industrial and domestic applications, e.g. lighting, air conditioning, machinery, doors etc.

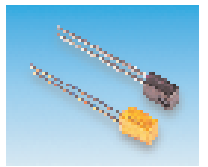
Supply Voltage	4.5V - 5.5V dc	Output	active low
Supply Current	5mA max.	Half angle	45°
Peak Response	940nm		

OPT554

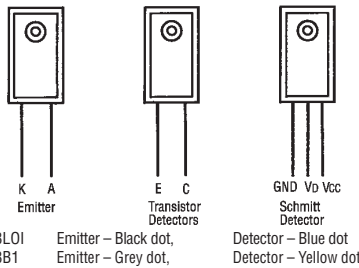
Mfrs. List No.	Order Code	Price Each				
		1+	10+	25+	50+	100+
PIC26043SM	<b>139-877</b>					

### Infra-Red Emitter/Detector Pairs – Matched

**QT & VISH Y**



TCZT8012: H = 5.0, W = 5.0, D = 2.65  
QPE1115: H = 5.1, W = 4.5, D = 2.54  
H23 Series: H = 5.8, W = 4.7, D = 2.6



TCZT8012	Emitter – Blue epoxy, Detector – Black epoxy	H23L01	Emitter – Black dot, Detector – Blue dot
QPE1115	Emitter – Yellow, Detector – Black	H23B1	Emitter – Grey dot, Detector – Yellow dot

**All Emitters:** I<sub>f</sub> (max) = 60mA

**Detectors:** **TCZT8012** Transistor output I<sub>CE(ON)</sub> = 1.0mA, (min) @ I<sub>f</sub> = 20mA, V<sub>CE</sub> = 5V, 4mm separation. t<sub>on</sub> = 5µs, t<sub>off</sub> = 4µs. Integral I.R. filter (Mfr. VISH).

**QPE1115** Transistor output I<sub>CE(ON)</sub> = 1.0mA (min.) @ I<sub>f</sub> = 30mA, V<sub>CE</sub> = 5V, 4mm separation. t<sub>on</sub> = 8µs, t<sub>off</sub> = 50µs (Mfr. QT)

**H23B1** Darlington output I<sub>CE(ON)</sub> = 7.5mA (min.) I<sub>f</sub> = 10mA, V<sub>CE</sub> = 1.5V, 4mm separation. t<sub>on</sub> = 45µs, t<sub>off</sub> = 250µs (Mfr. QT)

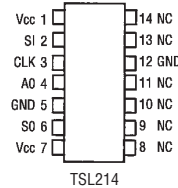
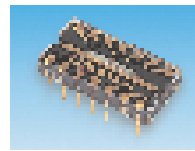
**H23LO1** Schmitt trigger with open collector output. I<sub>o</sub> = 50mA (max), V<sub>CC</sub> = 4 – 15V, 4mm separation from emitter. Switching t<sub>r</sub> = t<sub>f</sub> = 0.1µs (typ) (Mfr. QT)

**Note:** Products are supplied batch matched.

OPT146

Mfrs. List No.	Order Code	Price Each			
		1+	25+	100+	1K+
TCZT8012	<b>178-550</b>				
QPE1115	<b>280-367</b>				
H23B1	<b>327-669</b>				
H23LO1	<b>327-670</b>				

### Linear Array Sensors



TSL214

Linear array with 120µm 70µm charge mode pixels arranged on a 125µm pitch. The TSL214 has 64 1 pixels. The device has integral logic and is housed in a clear plastic 14 pin DIL package. Offer extendable data I/O for expanding the number of sensors. Microprocessor compatible. Applications include position sensing, process control, linear and rotary encoders, optical measurement systems.

Supply voltage	4.5V to 5.5V	Clock frequency	10Hz to 500kHz
Digital output voltage	-0.5V to V <sub>CC</sub> +0.5V	Peak wavelength	750nm

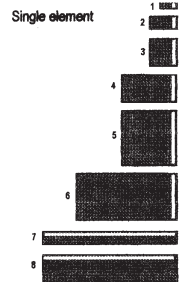
OPT246

Mfrs. List No.	Order Code	1+	25+	100+
TSL214	<b>460-965</b>			

### Planar Photodiodes

#### Solderable Planar Photodiodes

**SILONEX**



This range of photodiodes is suitable for a large variety of sensing applications. The large active areas can be used to accurately sense object position such as a paper edge, or as a large target for laser or long-range applications. Devices are supplied with a protective coating and 130mm flying leads.

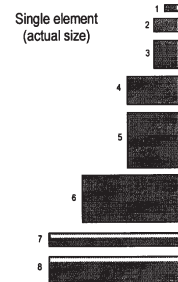
Mfrs. List No.	Short circuit current (typ) @ 25mW/cm <sup>2</sup>	Open Circuit Voltage (typ)	Dark Current VR = 5V (max) µA	Fig.	Chip size
SLSD-71N1	0.50mA	0.40	1.7	2	2.5 5.1mm
SLSD-71N2	1.20mA	0.40	3.3	3	5.1 5.1mm
SLSD-71N3	2.10mA	0.40	1.7	4	5.1 10.2mm
SLSD-71N4	2.30mA	0.40	5.0	7	2.5 25.4mm
SLSD-71N5	4.00mA	0.40	3.3	5	10.2 10.2mm
SLSD-71N6	6.00mA	0.40	3.3	8	5.1 25.4mm
SLSD-71N7	8.00mA	0.40	5.0	6	9.0 19.3mm
SLSD-71N8	0.17mA	0.40	1.7	1	1.3 3.4mm

OPT682

Mfrs. List No.	Order Code	1+	25+	100+
SLSD-71N1	<b>316-8207</b>			
SLSD-71N2	<b>316-8219</b>			
SLSD-71N3	<b>316-8220</b>			
SLSD-71N4	<b>316-8232</b>			
SLSD-71N5	<b>316-8244</b>			
SLSD-71N6	<b>316-8256</b>			
SLSD-71N7	<b>316-8268</b>			
SLSD-71N8	<b>316-8270</b>			

#### Solderable Planar Photodiodes - Chip Only

**SILONEX**



This range of photodiodes is suitable for a large variety of sensing applications. The large active areas can be used to accurately sense object position such as a paper edge, or as a large target for laser or long-range applications. Devices are supplied as a chip for the user to connect to. Arrays, duals and many other sensing configurations are possible.

Mfrs. List No.	Short circuit current (typ) @ 25mW/cm <sup>2</sup>	Open Circuit Voltage (typ)	Dark Current VR = 5V (max) µA	Fig.	Chip size
SLCD-61N1	0.50mA	0.40	1.7	2	2.5 5.1mm
SLCD-61N2	1.20mA	0.40	3.3	3	5.1 5.1mm
SLCD-61N3	2.10mA	0.40	1.7	4	5.1 10.2mm
SLCD-61N4	2.30mA	0.40	5.0	7	2.5 25.4mm
SLCD-61N5	4.00mA	0.40	3.3	5	10.2 10.2mm
SLCD-61N6	6.00mA	0.40	3.3	8	5.1 25.4mm
SLCD-61N7	8.00mA	0.40	5.0	6	9.0 19.3mm
SLCD-61N8	0.17mA	0.40	1.7	1	1.3 3.4mm

OPT680