



ISO - LOGIC INVERTER SCHMITT TRIGGER SIDE DETECTOR

DESCRIPTION

The IS657C is an optically integrated circuit detector with schmitt trigger inverter output. It is mounted in a clear plastic lateral side looking package which enables these devices to display superior mechanical resolutions, coupled characteristics and reliability in a low cost housing.

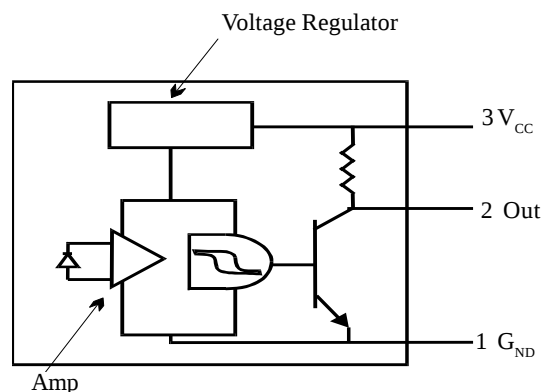
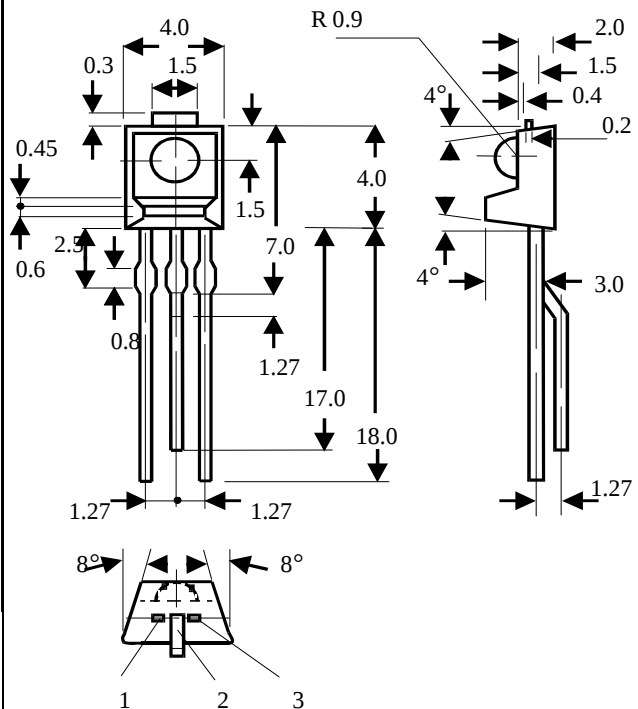
FEATURES

- Built-in Schmitt trigger circuit
- Low level output at incident light
- Pull up resistor between V_{CC} and output
- Lateral Side Looking Plastic Package
- High Sensitivity ($E_v = 35 \text{ lx at } 25^\circ\text{C}$)
- LSTTL and TTL Compatible output
- Supply voltage V_{CC} - 0.5 to +17 volts

APPLICATIONS

- Floppy disk drives
- Copiers, Printers, Facsimilies
- VCR's, Cassette tape recorders
- Automatic vending machines

Dimensions in mm



ISOCOM COMPONENTS LTD
Unit 25B, Park View Road West,
Park View Industrial Estate, Brenda Road
Hartlepool, Cleveland, TS25 1YD
Tel: (01429) 863609 Fax: (01429) 863581

ISOCOM INC
1024 S. Greenville Ave, Suite 240,
Allen, TX 75002 USA
Tel: (214) 495-0755 Fax: (214) 495-0901
e-mail info@isocom.com
<http://www.isocom.com>

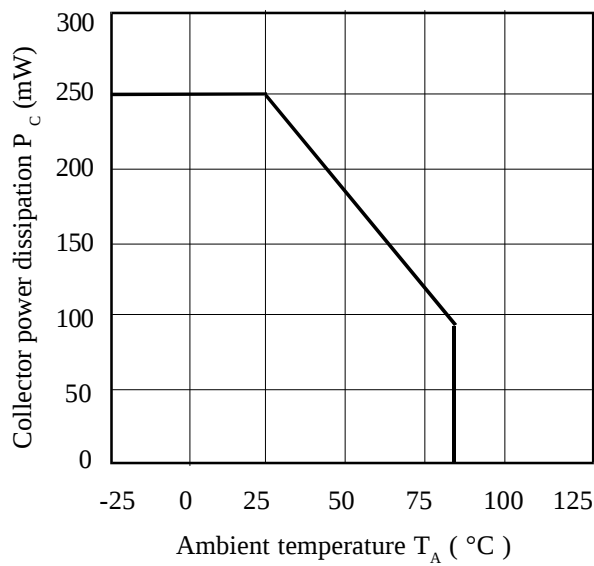
**ABSOLUTE MAXIMUM RATINGS (25°C unless
otherwise specified)**

Storage Temperature	_____	-40°C to +100°C
Operating Temperature	_____	-25°C to +85°C
Lead Soldering Temperature	_____	260°C
(5 secs maximum)		
Power Dissipation	_____	250 mW
Output Current	_____	50mA
Allowed Range V_{31}	_____	0 to 17V

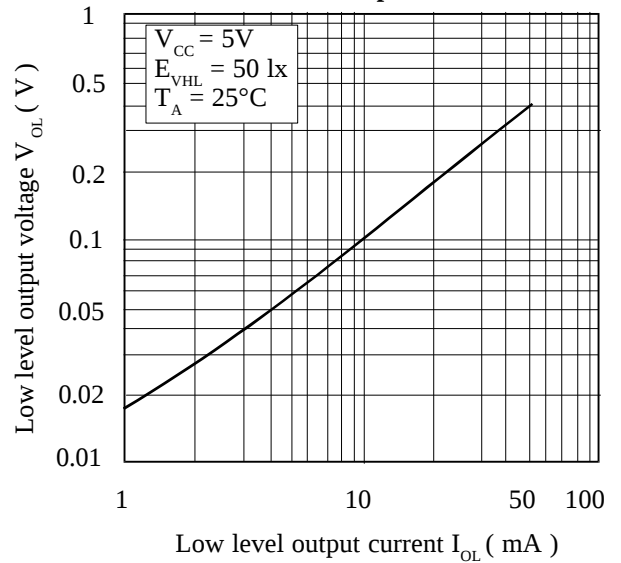
ELECTRICAL CHARACTERISTICS ($T_A = 0^\circ\text{C}$ to 70°C , $V_{CC} = 5\text{V}$ Unless otherwise noted)

PARAMETER		MIN	TYP	MAX	UNITS	TEST CONDITIONS
High Level Output Voltage	V_{OH}	3.5			V	$E_V = 50 \text{ lx}$
Low Level Output Voltage	V_{OL}			0.4	V	$I_{OL} = 16\text{mA}$, $E_V = 0 \text{ lx}$
Supply Current	I_{CCL} I_{CCH}			4.5 3	mA mA	$E_V = 50 \text{ lx}$ $E_V = 0$
High to Low Threshold Illumination	E_{VHL}		15	35 50	lx lx	$T_A = 25^\circ\text{C}$, $R_L = 280\Omega$ $R_L = 280\Omega$
Low to High Threshold Illumination	E_{VLH}	1.5 1	10		lx lx	$T_A = 25^\circ\text{C}$, $R_L = 280\Omega$ $R_L = 280\Omega$
Hysteresis	E_{VLH} E_{VHL}	0.50	0.65	0.90		$T_A = 25^\circ\text{C}$, $R_L = 280\Omega$
High to Low Propagation Time	t_{PHL}		3	9	μs	$T_A = 25^\circ\text{C}$, $E_V = 50 \text{ lx}$
Low to High Propagation Time	t_{PLH}		5	15	μs	$R_L = 280\Omega$
Rise Time	t_r		0.1	0.5	μs	
Fall Time	t_f		0.05	0.5	μs	

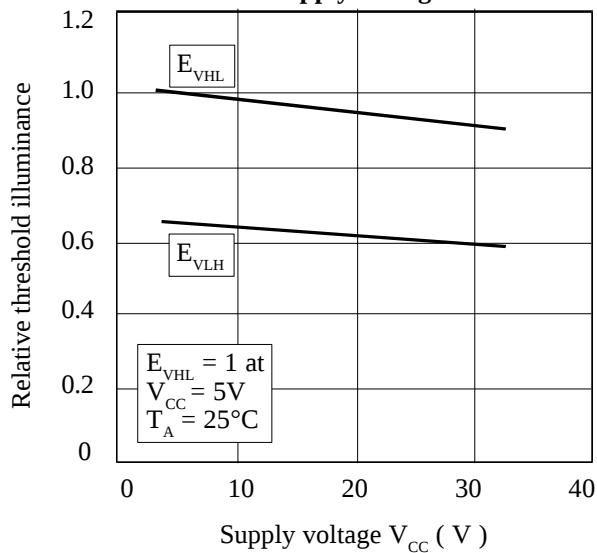
Collector Power Dissipation vs. Ambient Temperature



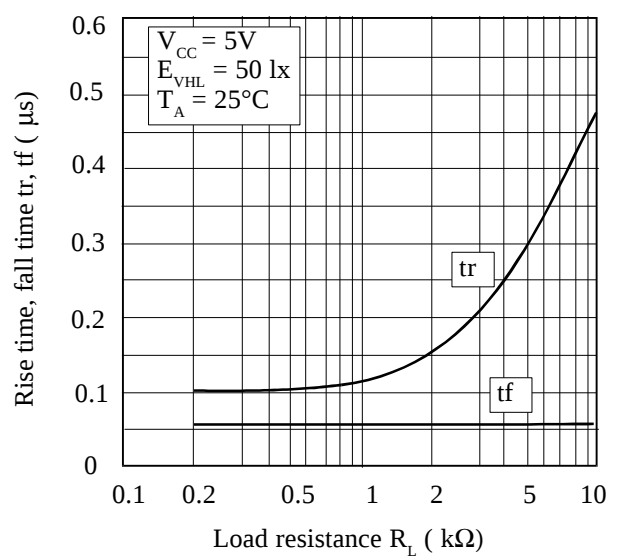
Low Level Output Voltage vs. Low Level Output Current



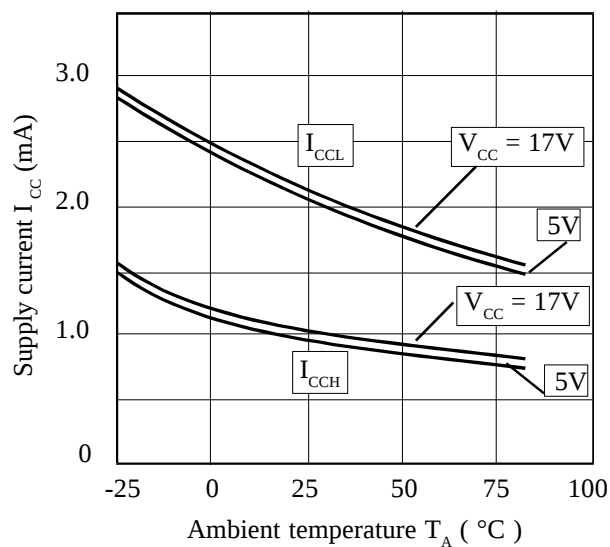
Relative Threshold Illuminance vs. Supply Voltage



Rise Time, Fall Time vs. Load Resistance



Supply Current vs. Ambient Temperature



Low Level Output Voltage vs. Ambient Temperature

