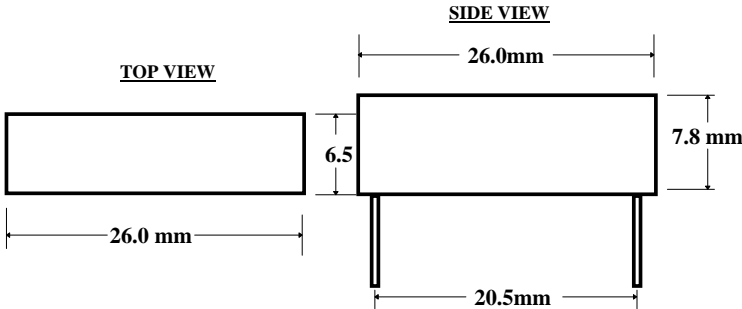
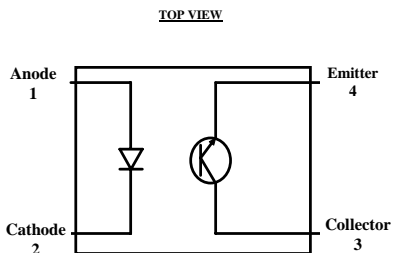


# ISH4 TRANSISTOR OPTOCOUPLEDERS

**ISOCOM**<sup>®</sup> LTD

PACKAGES	CIRCUIT
	

## DESCRIPTION

The ISH 4 is an optically coupled isolator, consisting of an infrared emitting diode with a minimum separation of 15mm between the emitter and a transistor detector. They are mounted in a sealed package, and have an operating temperature range of -40°C to +100°C with an isolation voltage of 11Kv.

Isocom Ltd supplies a multitude of plastic optocouplers for all applications varying from standard transistor optos through to Darlington and Schmitt Trigger devices. It's massive family of optos vary in speed allowing maximum opportunity to engineers worldwide.

All devices are performance guaranteed between -40°C and +100°C and have completed rigorous testing.

The Company's customers can be assured of our commitment to stringent quality, reliability and inspection standards, as demonstrated by our existing approvals. Other customer specific options can also be offered.

## FEATURES

- 11000V Isolation
- Minimum internal separation of 15mm
- Low cost 4 pin package

Isocom Ltd reserves the right to change the details on this specification without notice. Please consult Isocom Ltd prior to use. Isocom Ltd cannot accept liability for any errors or omissions.

For sales enquiries, or further information, please contact our sales office at:

Isocom Ltd, Hutton Close, Crowther Industrial Estate, District 3, Washington, NE38 0AH

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Or go to the Isocom Website @: [Http://www.isocom.uk.com](http://www.isocom.uk.com)

## ABSOLUTE MAXIMUM RATINGS

Storage Temperature	-40°C to +85°C
Operating Temperature	-25°C to +85°C
Lead Soldering Temperature	240°C 1.6mm from case for 5S
Input-to-Output Isolation Voltage	11000V

### Input Diode

Forward DC Current	50mA	
Reverse DC Voltage	5V	
Pulse forward Current	600mA	PW. ≤100μS Repetitive Frequency =100Khz
Power Dissipation	100mW	Derate linearly above 25°C at 0.66mW/°C.

### Output Transistor

Collector-Emitter Voltage	30V	BV <sub>CEO</sub>
Emitter-collector voltage	5V	BV <sub>ECO</sub>
Power Dissipation	100mW	Derate linearly above 25°C at 2.0mW/°C

## ELECTRICAL CHARACTERISTICS

T<sub>A</sub> = 25°C U.O.S. (each channel where appropriate).

### Input Diode Electrical Characteristics

Parameter	Symbol	Test Conditions	Device	Min	Typ	Max	Units
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> = 10mA		1.0	1.15	1.3	V
Reverse Current	I <sub>R</sub>	V <sub>R</sub> = 5V				10	μA

### Output Detector Electrical Characteristics

Collector-emitter Dark Current	I <sub>CEO</sub>	V <sub>CE</sub> = 10V, H = 0				100	nA
Collector-Emitter Breakdown Voltage	V <sub>(BR)CEO</sub>	I <sub>C</sub> = 100μA		30			V
Emitter-collector Breakdown Voltage	V <sub>(BR)ECO</sub>	I <sub>E</sub> = 100μA		5.0			V

### Coupled Electrical Characteristics

Collector-Emitter Saturation Voltage	V <sub>CE(Sat)</sub>	I <sub>C</sub> = 10μA, H = 1mW/cm <sup>2</sup>				0.4	V
Rise Time	t <sub>r</sub>	V <sub>CC</sub> = 5V, I <sub>L</sub> = 1mA, R <sub>L</sub> = 1000Ω			15		μS
Fall Time	t <sub>f</sub>				15		μS

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