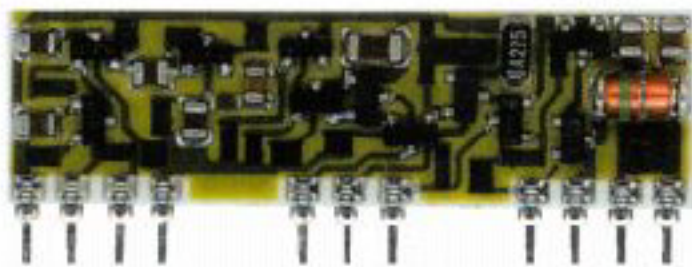




# IRD1

## Infrared Pulse Detector



### General description

The IRD1 is an hybrid circuit that allows to realize an infrared barrier when utilized with an infrared pulse transmitter (IRT1).

IRD1 detect IR pulses and activate the output signal when the barrier is interrupted by an object.

It shows stable electric characteristics thanks to the "Thick film hybrid" technology.

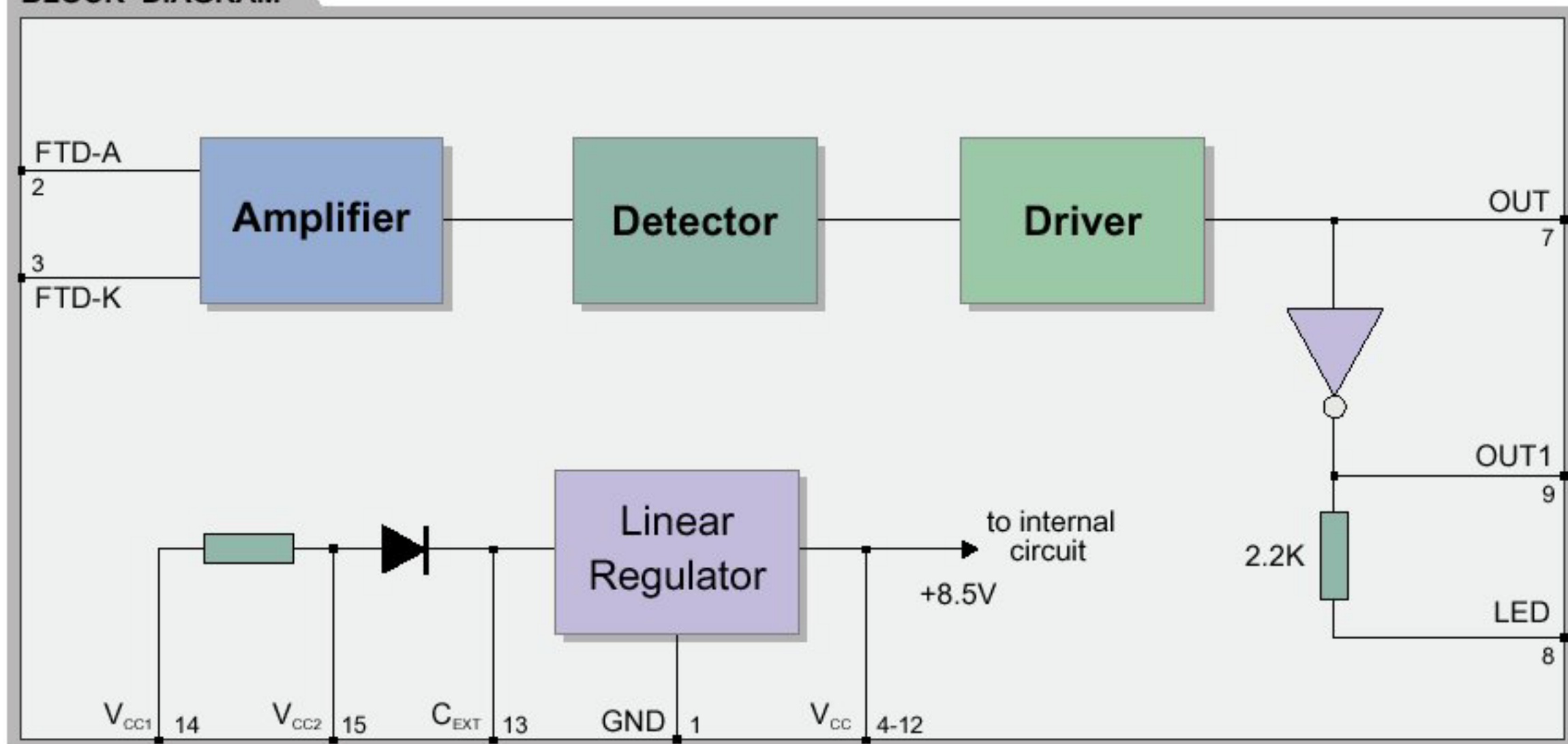
### Features

- High RFI Immunity
- SIL Package

### Applications

- Residential and commercial security systems
- Automatic doors opening systems

### BLOCK DIAGRAM



## Electrical Characteristics

Ta = 25°C unless otherwise specified

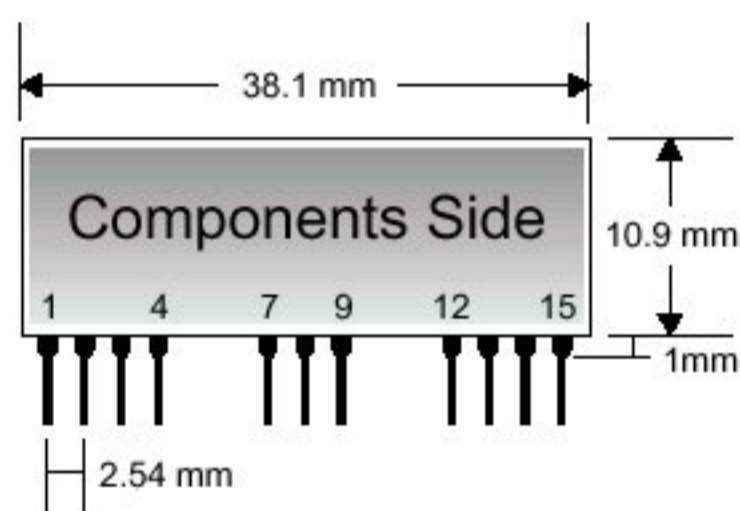
CHARACTERISTICS		MIN	TYP	MAX	UNIT
V <sub>CC1</sub>	Supply Voltage	18	24	32	VDC/VAC
V <sub>CC2</sub>	Supply Voltage	9	12	18	VDC/VAC
I <sub>S</sub>	Supply Current		3		mA
F <sub>IR</sub>	Infrared Pulse Frequency	300	400		Hz
I <sub>O</sub>	Out Sink Current			20	mA
T <sub>OP</sub>	Operating Temperature Range	-20		+80	°C

## Pin Description

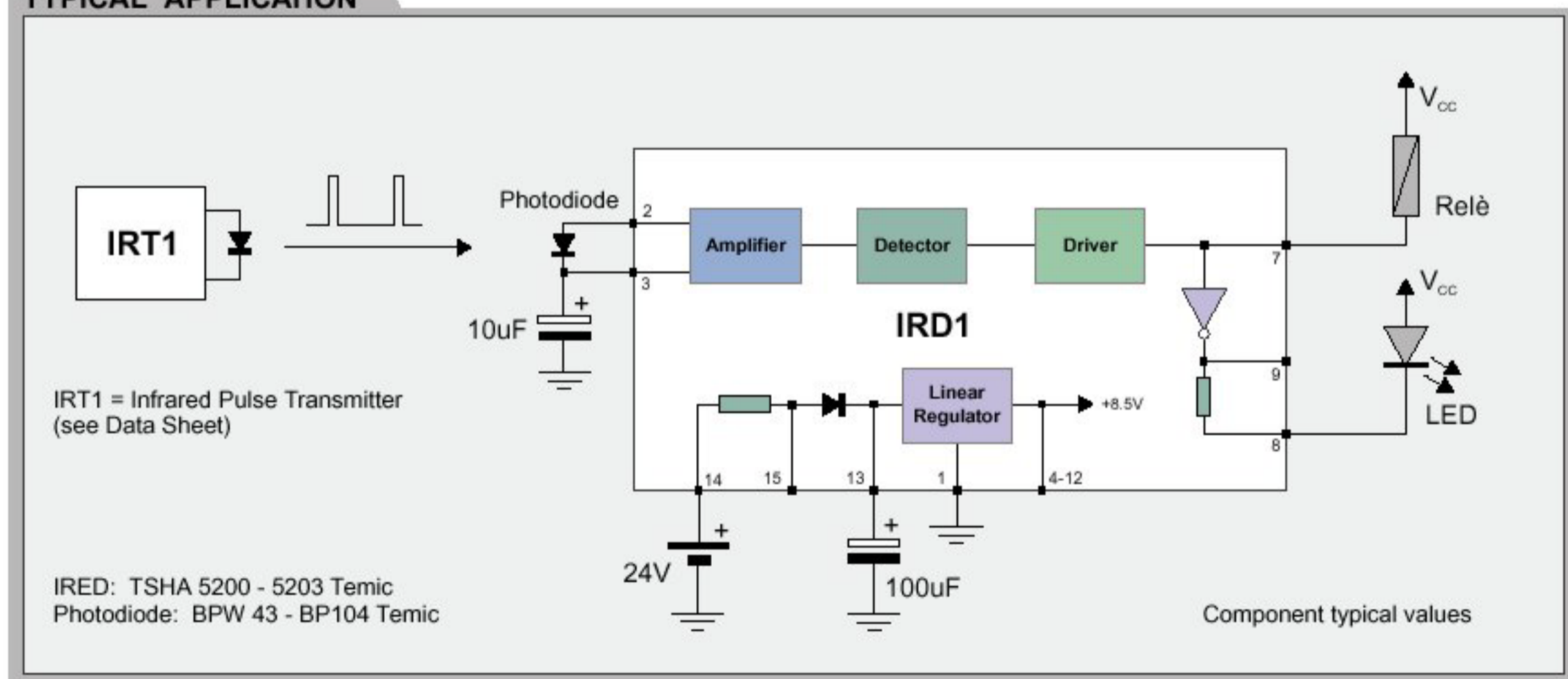
1	GND	Ground
2	FTD-A	Photodiode Anode
3	FTD-K	Photodiode Katode
4-12	Vcc	Supply Voltage of Internal Stage
7	Out	Output Signal (Low if impulse received)
8	LED	Led Control Signal
9	Out1	Output Signal (High if impulse received)
13	C <sub>EXT</sub>	External Filter Capacitor
14	Vcc1*	24V DC/AC Supply Voltage
15	Vcc2*	12V DC/AC Supply Voltage

\* Only one power supply voltage is necessary (12 or 24 V)

## Mechanical Dimensions



## TYPICAL APPLICATION



R. F. Solutions Ltd.,  
Unit 21, Cliffe Industrial Estate,  
South Street, Lewes,  
E Sussex, BN8 6JL. England.  
Tel +44 (0)1273 898 000. Fax +44 (0)1273 480 661.  
Email sales@rfsolutions.co.uk  
http://www.rfsolutions.co.uk

RF Solutions is a member of the Low Power Radio Association.