

IRD1

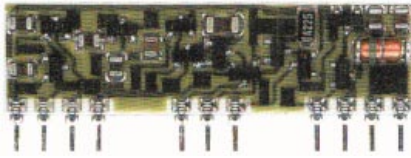
Infrared Pulse Detector

General description

The IRD1 is a 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.



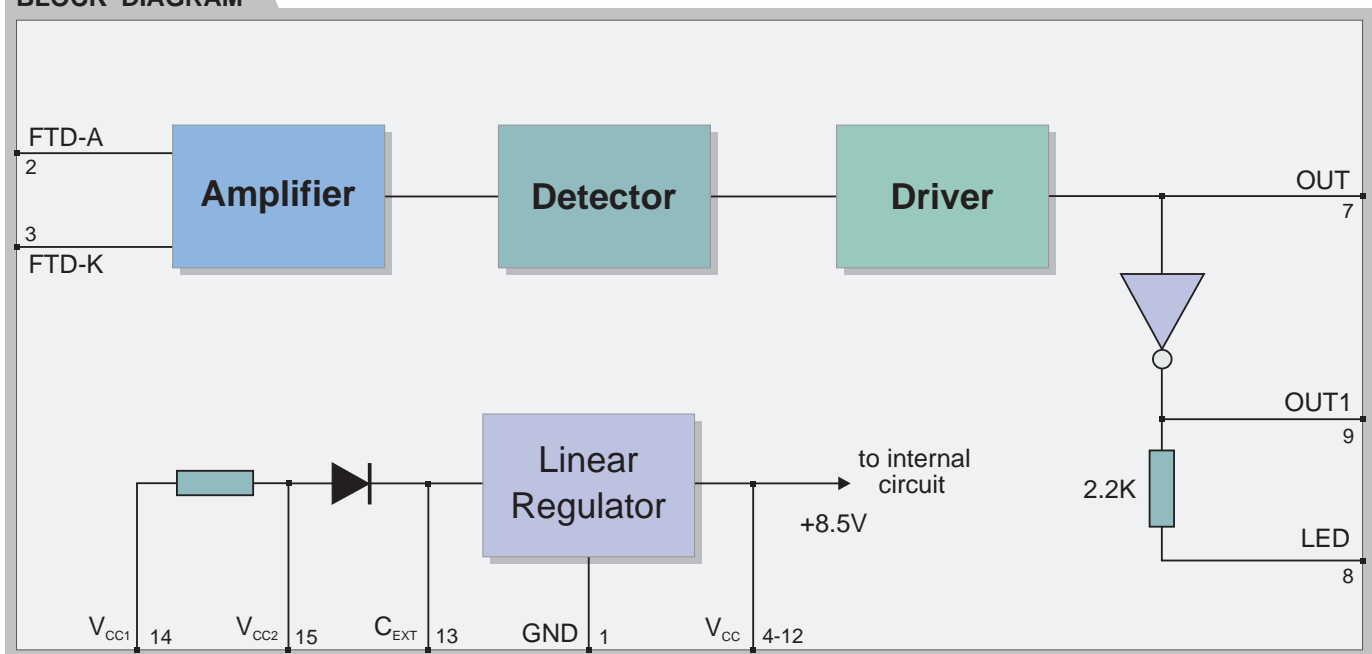
Features

- High RFI Immunity
- SIL Package

Applications

- Residential and commercial security systems
- Automatic doors opening systems

BLOCK DIAGRAM



Electrical Characteristics

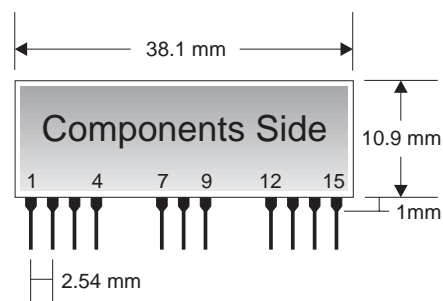
Ta = 25°C unless otherwise specified

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

Pin Description

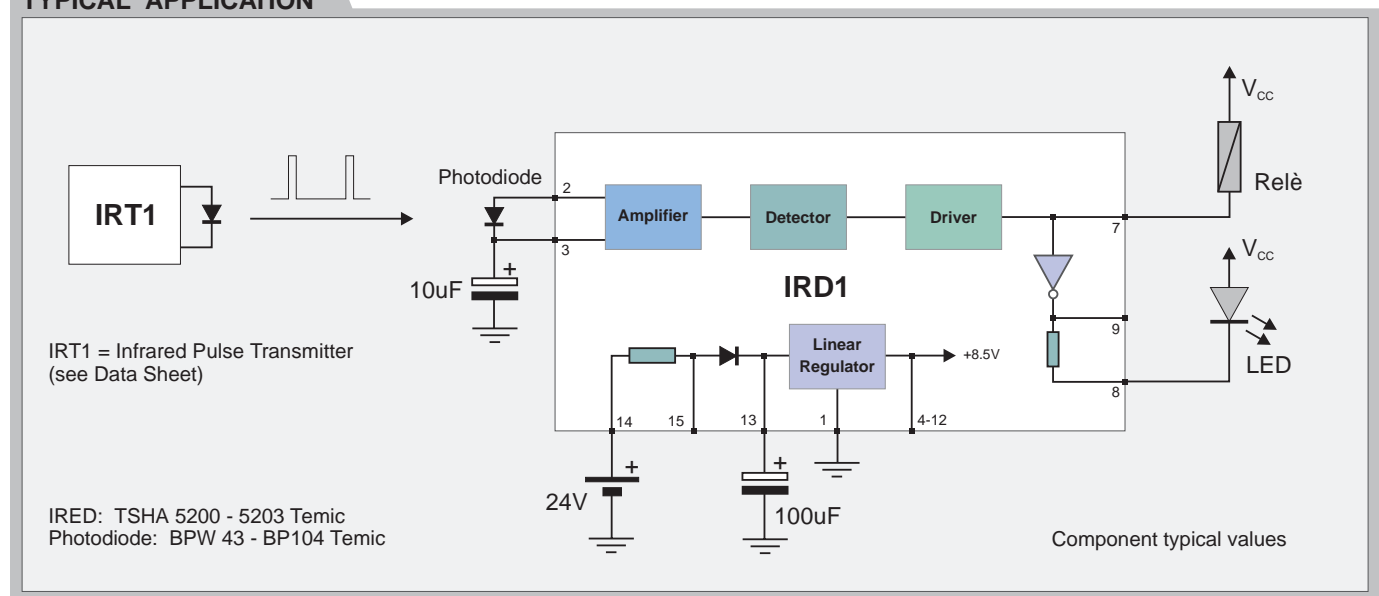
1	GND	Ground
2	FTD-A	Photodiode Anode
3	FTD-K	Photodiode Katode
4-12	Vcc	Supply Voltage of Internal Stage
7	Out	Output Signal (Low if impulse received)
8	LED	Led Control Signal
9	Out1	Output Signal (High if impulse received)
13	CEXT	External Filter Capacitor
14	Vcc1*	24V DC/AC Supply Voltage
15	Vcc2*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

Mechanical Dimensions



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

TYPICAL APPLICATION



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