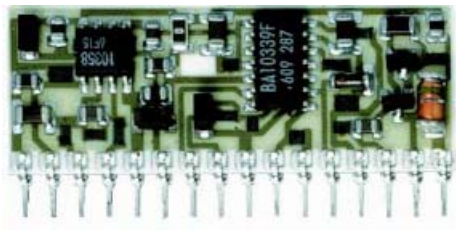
PID1

Passive Infrared Detector



General description

The PID1 is an hybrid circuit that allows to realize a passive infrared detector adding few external components.

Detection is based on infrared radiations emitted by human body.

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

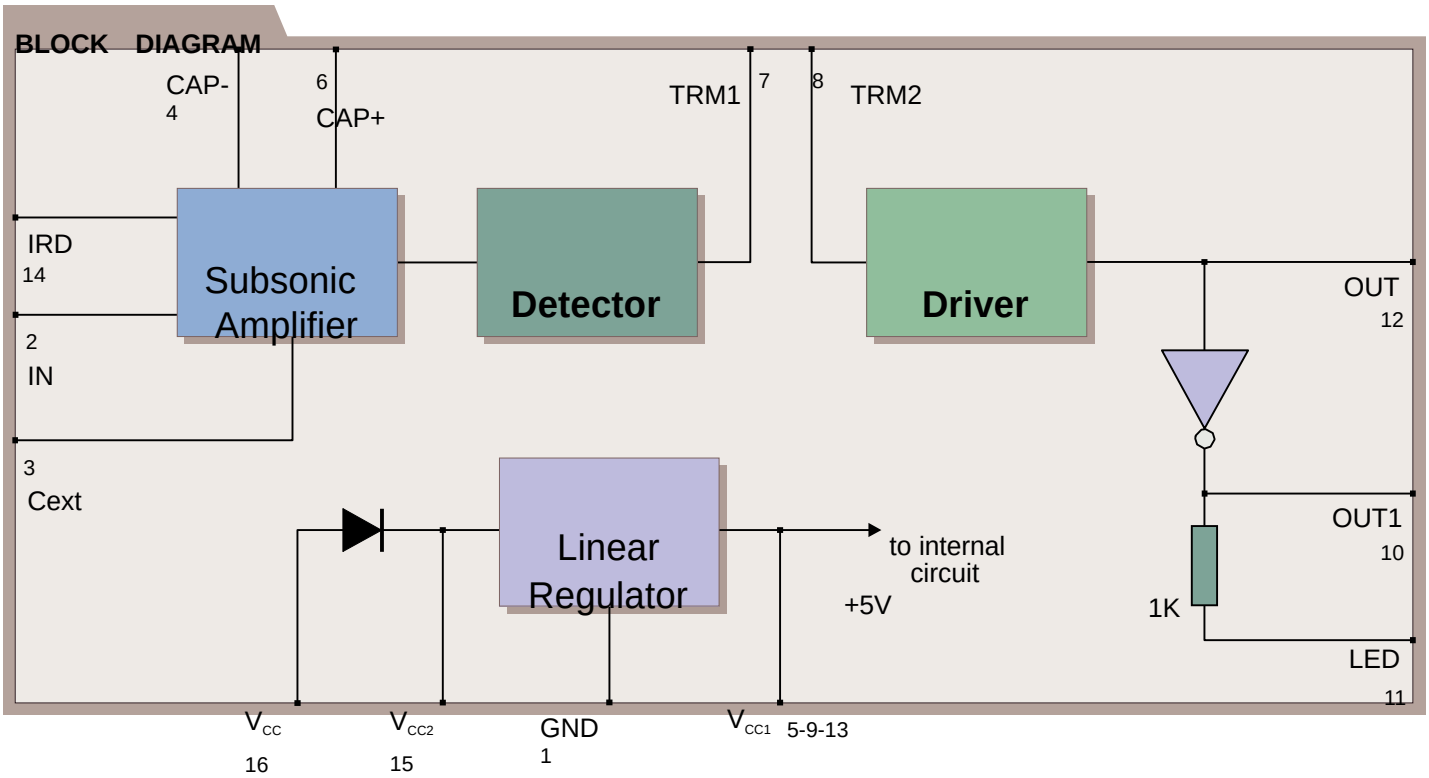
Features

- High RFI Immunity
- SIL Package

Applications

- Residential and commercial security systems
- Automatic doors opening systems

BLOCK DIAGRAM



Electrical Characteristics

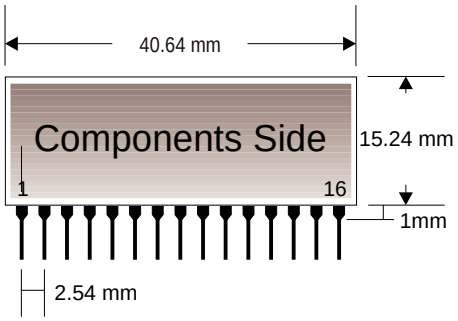
Ta = 25°C unless otherwise specified

	CHARACTERISTICS	MIN	TYP	MAX	UNIT
V_{CC}	Supply Voltage	9	12	16	VDC
I_S	Supply Current		5		mA
G	Amplifier Gain		70		dB
B_W	Amplifier Bandwidth	1		10	KHz
I_O	Out2 Sink Current			20	mA
T_{OP}	Operating Temperature Range	-10		+70	°C

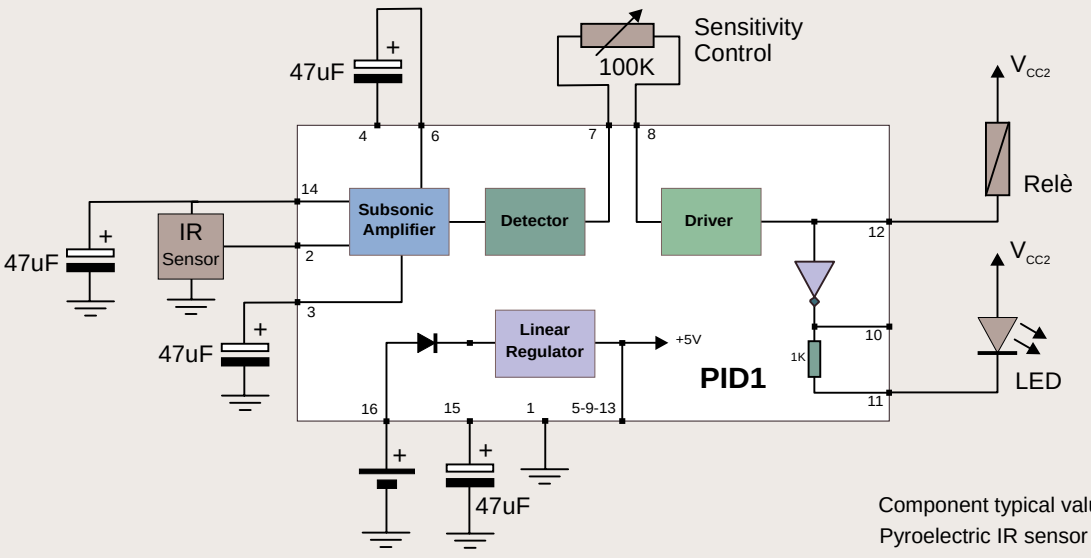
Pin Description

1	GND	Ground
2	IN	Infrared Sensor Input
3	Cext	External Capacitor
4	CAP-	External Capacitor (-)
5-9-13	Vcc1	Supply Voltage of Internal Stage
6	CAP+	External Capacitor (+)
7	TRM1	External Trimmer
8	TRM2	External Trimmer
10	Out1	Output Signal (active low)
11	LED	Led Control Signal
12	Out	Output Signal (active high)
14	IRD	Infrared Sensor Drain
15	Vcc2	+12V Output Voltage
16	Vcc	Input Supply Voltage

Mechanical Dimensions



TYPICAL APPLICATION



Component typical values
Pyroelectric IR sensor : Heimann LHi954