

Infrared Devices

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.

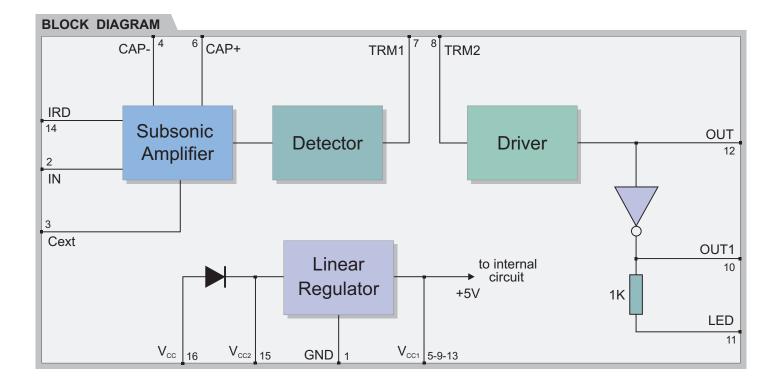
It shows stable electric characteristics thanks to the "Thick film hybrid" tecnhology.

Features

- High RFI Immunity
- SIL Package

Applications

- Residential and commercial security systems
- Automatic doors opening systems



Electrical Characteristics

Ta = 25°C unless otherwise specified

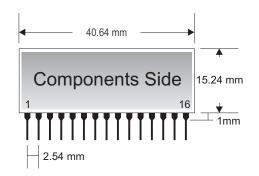
	CHARACTERISTICS	MIN	TYP	MAX	UNIT
V_{cc}	Supply Voltage	9	12	16	VDC
I _s	Supply Current		5		mA
G	Amplifier Gain		70		dB
B _w	Amplifier Bandwidth	1		10	KHz
I _o	Out2 Sink Current			20	mA
T _{op}	Operating Temperature Range	-10		+70	°C

Pin Description

TYPICAL APPLICATION

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



Sensitivity Control 100K V_{cc2} 47uF 4 6 7 8 Relè 14 Subsonic Detector Driver IR Amplifier 12 $V_{\rm CC2}$ 2 Sensor 47uF 3 Linear 10 ·5\ 47uF Regulator 1K PID1 LED 11 5-9-13 16 15 47uF Component typical values Pyroelectric IR sensor : Heimann LHi954



HEAD OFFICE & PLANT

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