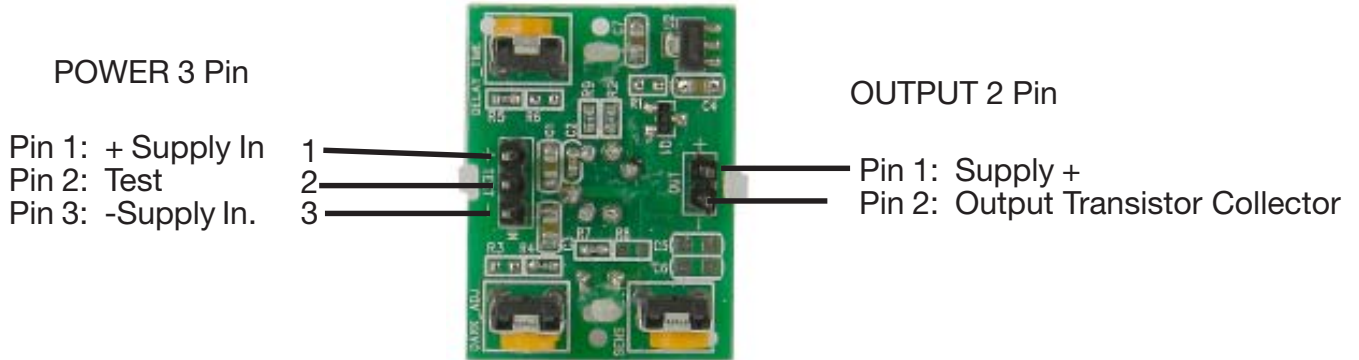


19518-SC

PIR MOTION DETECTOR/LIGHT SENSOR

Mini Dual Element PIR Motion Detectors designed for the human Body.
Ambient Light Sensor
3V digital output (TTL) to drive Your external Circuit

Supply Voltage: 4-24VDC
Current Drain: <1mA module only
Output: TTL, 0V Low/3V High (Detected Movement) <300uA Source <100mA max Sink
Hold Time: ~2sec. to~70min. Adjustable
Recycle Delay: ~2sec. after hold time
Continuous Movement yields Continuous Output
Light Sensor: 3-10lux adjustable
Range: ~6-8 meters
Lens: 23mm Dia. Plastic Omni Fresnel
Detection Angle: ~120Degrees
Terminals: .025in Sq. Header Pins on 0.10in Spacing (mate not supplied)
Size: L: 32mm W: 23mm H: 25mm Wt: .08



TYPICAL OUTPUT CIRCUITS (Parts Not Included)

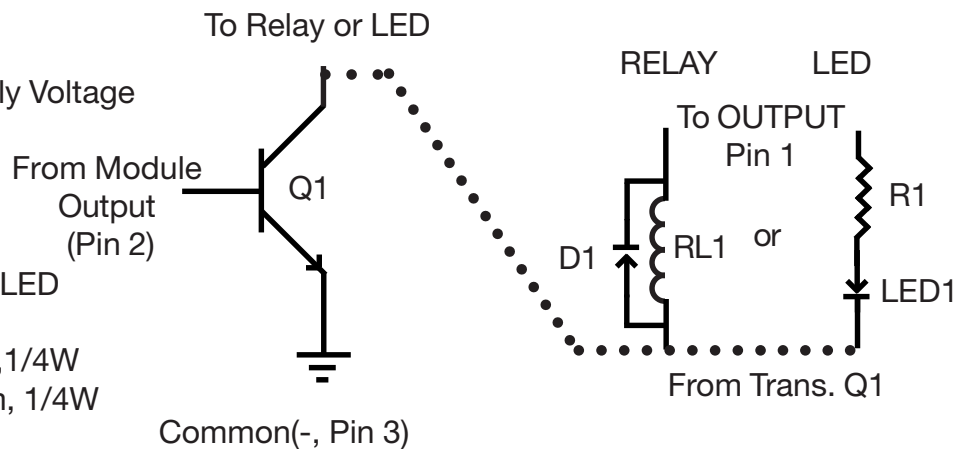
Q1: PN2222

RL1: Dependent on Supply Voltage
Sensitive coil

D1: 1N4001 diode

LED1: Any standard 20mA LED

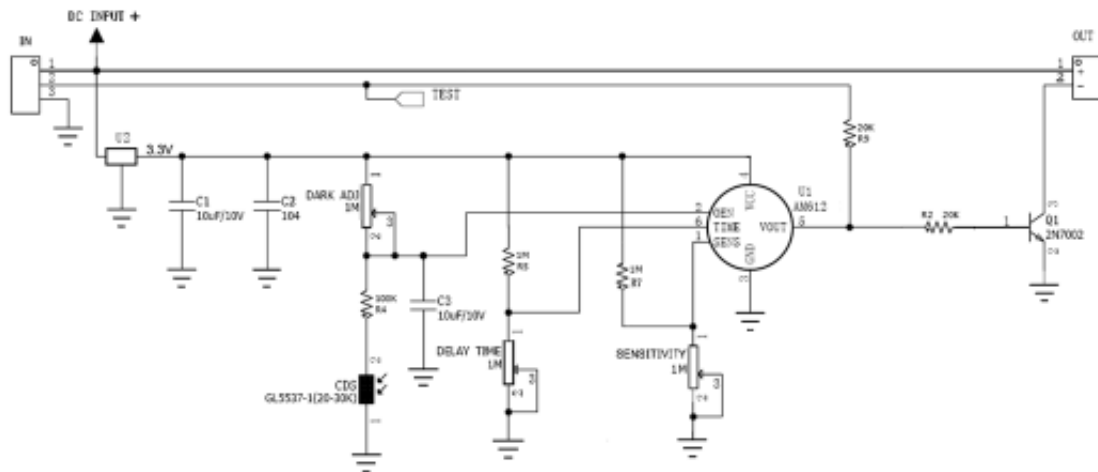
R1: 5V Supply 220 Ohm, 1/4W
12V Supply 510 ohm, 1/4W



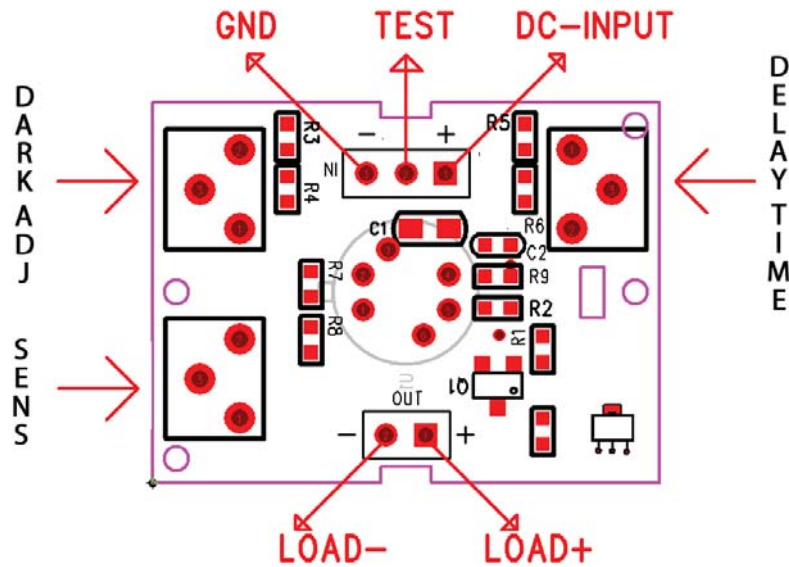
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P.O. Box 530400 Lake Park, FL 33403
800-652-6733 FAX 561-844-8764
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Circuit Diagram SB00622A-2 Module



Module Part Location



Note

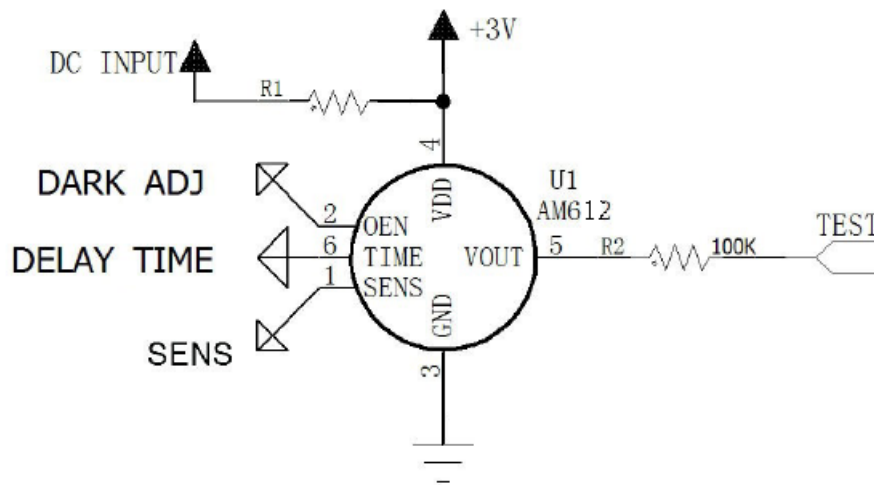
- Due to the high sensitivity of PIR sensor device, it is not recommended to use the module in the following or similar conditions
- Rapid environmental changes
 - Strong shock or vibration
 - Place where there are obstructing material (eg. glass) through which IR cannot pass within detection area
 - Exposer to direct or reflected sun light
 - Exposed to direct draft from a heater or air conditioner



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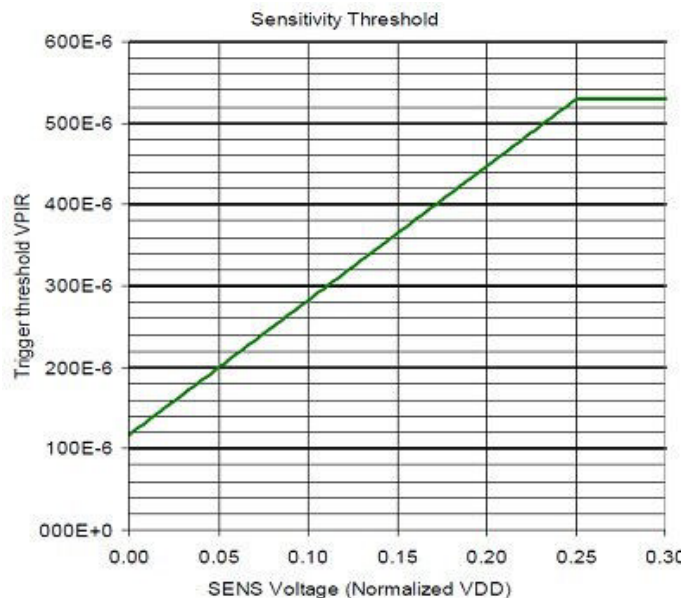
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Information for AM612 I/R Detector IC



Sensitivity adjustment

A voltage applied to the SENS input sets the threshold used to detect a PIR Signal between the PIRIN and NPIPIN inputs. VSS selects the minimum threshold voltage. Any voltage above VDD/4 will select the maximum threshold, which is the least sensitive setting for PIR signal detection.



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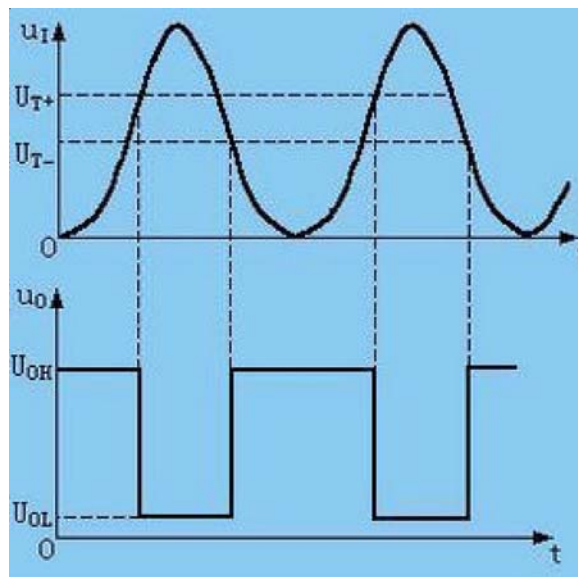
Information for AM612 I/R Detector IC cont.

Light Adjustment

VDD=3V

OEN voltage transitions from low to high, when higher than $0.4V_{DD}$ (1.2V), Vout is enabled.

OEN voltage transitions from high to low, when lower $0.2V_{DD}$ (0.6V), Vout is disabled.



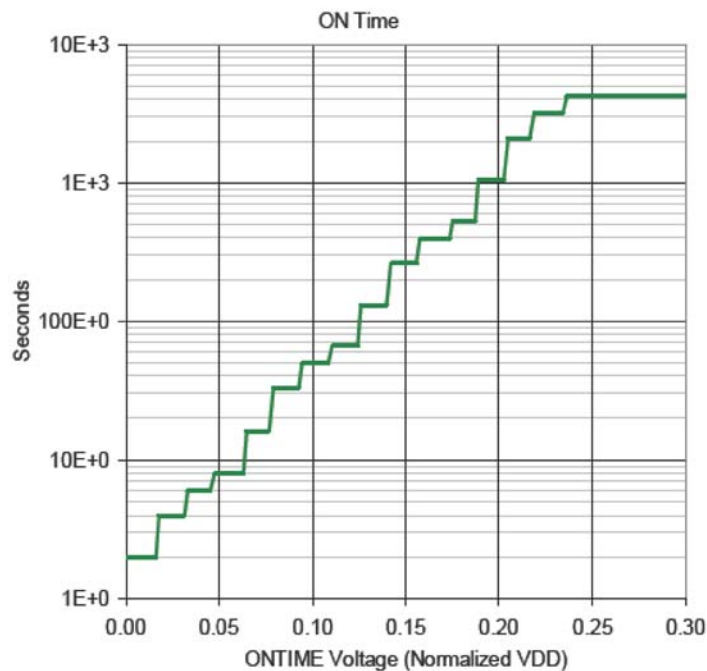
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Information for AM612 I/R Detector IC cont.

On Time adjustment

Pin voltage	PIN ADC Count	On time in Seconds	On time
Vdd*1/128 or less	0	2	2 sec
Vdd*3/128	1	4	4sec
Vdd*5/128	2	6	6sec
Vdd*7/128	3	8	8 sec
Vdd*9/128	4	16	16sec
Vdd*11/128	5	33	32 sec
Vdd*13/128	6	49	49 sec
Vdd*15/128	7	66	1mini 5 sec
Vdd*17/128	8	131	2 min 11 sec
Vdd*19/128	9	262	4 min 22 sec
Vdd*21/128	10	393	6 min 33 sec
Vdd*23/128	11	524	8 min 44 sec
Vdd*25/128	12	1049	17 min 28 sec
Vdd*27/128	13	2097	34 min 57 sec
Vdd*29/128	14	3146	52 min 25 sec
Vdd*31/128 or above	15	4194	1hour 10min (Connect to VDD)



Graph 1 : REL Output On Time in seconds vs. ONTIME pin voltages normalized to VDD.



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