

## LSMD1HT

Optical position detector board with photoelectric barrier and amplified signal output.



### Features:

- 3.3 and 5 V compatible logic
- 2.54mm (0.1") header
- M3 mounting hole
- Amplified signal detection
- Open collector output
- Indicated tripping
- $f_{Max} > 3\text{kHz}$
- Small Size
- RoHS compliant and Pb free
- Slope precision ( $I_{Trip} < 0.1\text{ mm}$ )
- Low cost

### Size:

PCB: 26.5 x 10 mm; Weight : < 1.3 g

### Applications:

Tools, printers, linear actuators, RC models, robots, motor controls, object detection

### Marking :

LSMD1HT  
km 2012

### DISCLAIMER

- The manufacturer assumes no responsibility for the use and reliability of devices that use described here parts and schematics.
- Products included in this document are intended for usage in all kind of uncritical electronical equipment, e.g. handheld systems, computers, tools, printers, simple robotics. The products are NOT authorized for use in life support systems, medical equipment, powerplants and all other kinds of safety related devices where malfunction, fail and unintended use can lead to death or hazardous injury. The described parts must NOT be used in devices with influence to the function of life security systems.
- The Manufacturer continuously improves the data as the product quality itselfes. Resultant to the products vulnerability to physical stress, moisture, temperature, electrostatic discharges and other environmental conditions, it can malfunction of fail. It is the duty of the customer to avoid malfunction or erroneous states when using products in systems needing compliance with the legal standards of safety.
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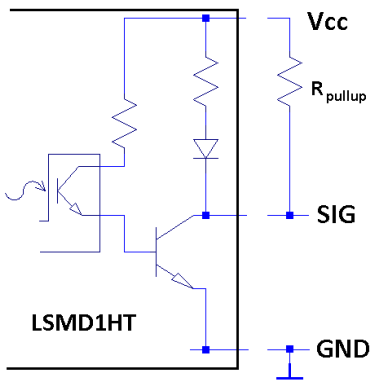
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**Electrical characteristics :**

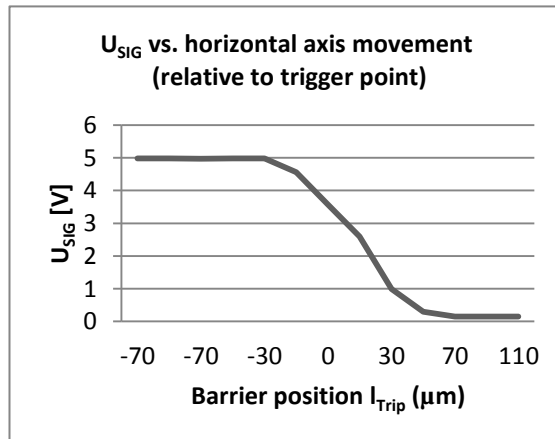
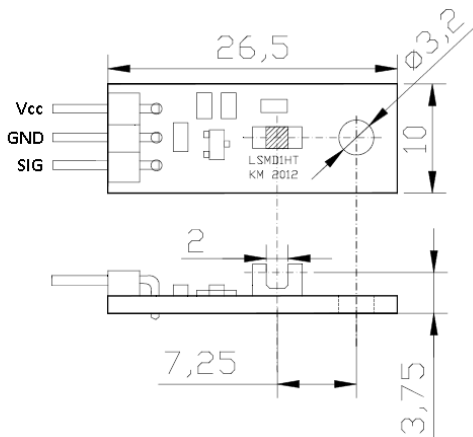
TA = 10°C to 60°C, VCC = 5.0V with 1kΩ pullup resistor

Symbol	Description	@5V		Unit
		Min.	Max.	
V <sub>CC</sub>	Supply voltage	3.0	13.0	V
V <sub>InfMax</sub>	Tolerable reverse voltage	-	-5.0	V
I <sub>Iop</sub>	Supply current (uninterrupted barrier)	6.5	11.0	mA
U <sub>SigHi</sub>	Output voltage (uninterrupted barrier)	0.9*V <sub>CC</sub> <sup>1</sup>	-	V
U <sub>SigLo</sub>	Output voltage (interrupted barrier)	-	0.1*V <sub>CC</sub>	V
I <sub>SigHi</sub>	Max. allowed collector input current	-	20	mA
F <sub>max</sub>	Maximum switching frequency	10	-	kHz
R <sub>pullup</sub>	Recommended pullup resistance (V <sub>CC</sub> = 5V)	1	56	kΩ

**Connection diagram:**



**Mechanical drawing (all units in mm)**



<sup>1</sup> 0.6\*V<sub>CC</sub> (without pullup resistor)