

# **MOBICON**

## **Electronic Components**

### **PRODUCT SPECIFICATION**

### **MEC**

### **IR Receiver Module**

#### **SPECIFICATION**

This specifications is subject to change without notice.

<b>MOBICON HOLDINGS LTD.</b>		
<b>Prepared By</b>	<b>Sign.</b>	<b>Approved By</b>
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## General Description

The HM 038 is a miniaturized receiver for use in Infrared carrier frequency PCM remote control systems. A high quality photo diode and a low noise preamplifier are assembled on lead frame, and the epoxy package is designed as IR filter.

The demodulated output signal can directly be decoded by a microprocessor. The main benefit is the reliable function even in disturbed ambient and the protection against uncontrolled output pulses.

## Features

- Small size package 6 x 7 mm
- Internal filter for PCM frequency
- TTL & CMOS compatibility
- Output active low
- Enhanced immunity against disturbance light
- Suitable burst length >10 cycles per burst
- Low supply voltage 2.7 ~ 5.5

# MIEC

## Absolute Maximum Ratings

Tamb = 25°C

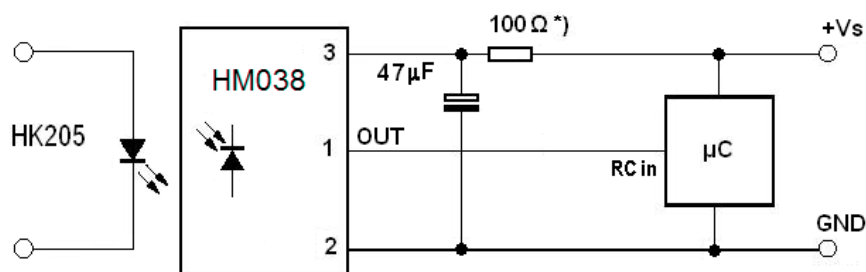
Parameter	Test Conditions	Symbol	Value	Unit
Supply Voltage	(Pin 3)	Vs	6.0	V
Output Voltage	(Pin 1)	Vo	6.0	V
Output Current	(Pin 1)	Io	2.5	mA
Operating Temperature range		Tamb	-20...+80	°C
Storage Temperature range		Tstg	-25...+85	°C
Soldering Temperature	t ≤ 5 sec. 3mm from case		260	°C

## Electrical & Optical Characteristics

Tamb = 25°C

Parameter	Test Condition	Symbol	Min	Typ	Max	Unit
Supply current	Vs = 5V, Ev = 0	Is	0.6	1.0	2.0	mA
Operating Voltage	(Pin 3)	Vs	2.7		5.5	V
Transmission distance	IR diode HK205, If = 400mA			20		m
Output Voltage Low	Active low, (Pin 1)	VOL			250	mV
Peak Wavelength	Internal IR filter	λ		940		nm
Carrier frequency	Internal BPF	fc		37.9		KHz
Output pulse width	Input burst = 600μS	Tp	500		800	μS
Directivity	Angle of 1/2 transmission distance			± 45		deg

## Application Circuit

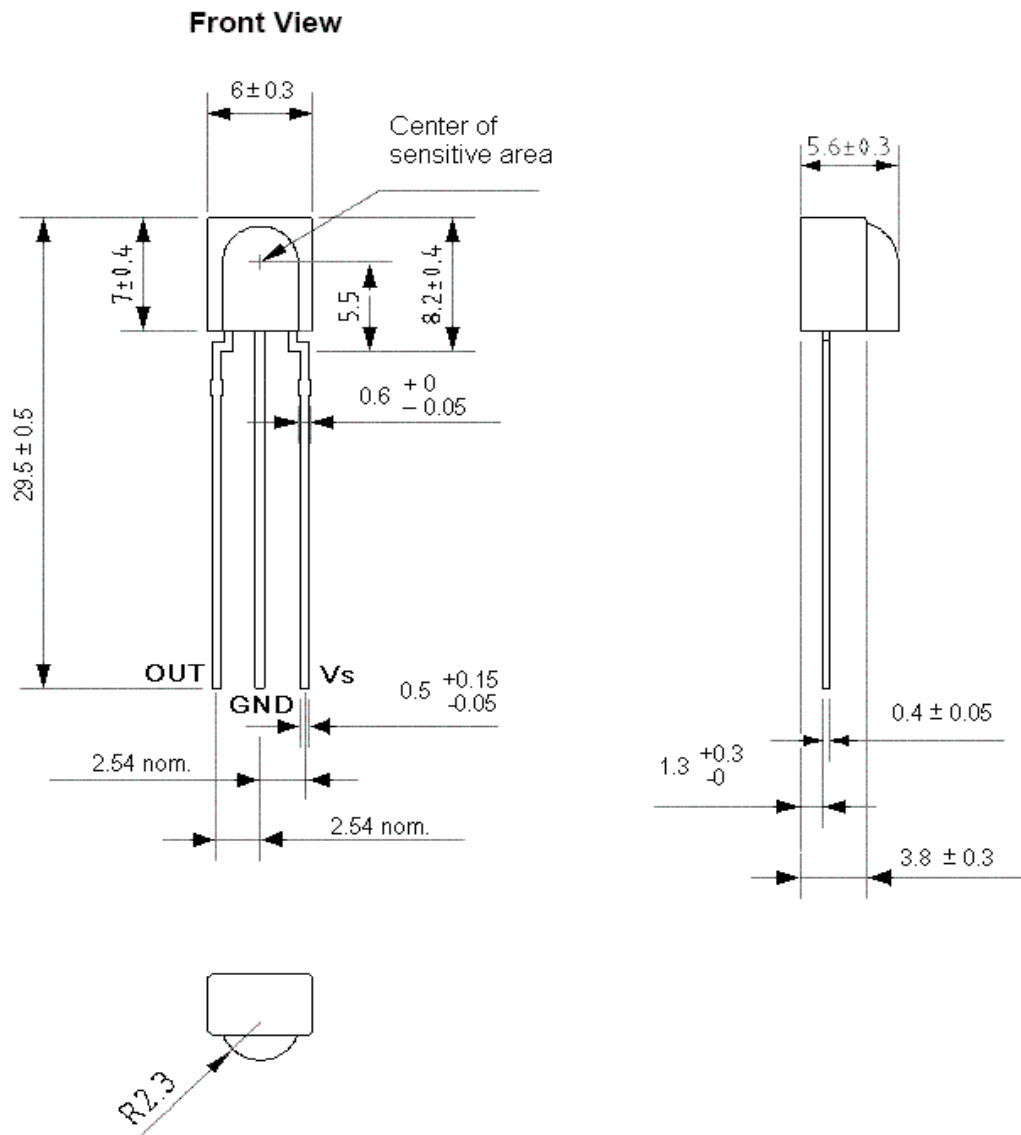


\* Note: Power line filter is recommended

# MEC

## Package

Dimensions in mm



Lead-free product according to RoHS directives.

# MIEC

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