

YHM1107A/B/C

High Voltage Low Ron DPST Switch with OVP

Features

- VCCEN voltage range: 1.1V ~ 5.5V
- COM/NO recommend voltage range: -3V~16V
- COMx to NOx On-resistance: typical 110mΩ each
- Max 1.5A continuous current capability each
- Peak 2.5A current (<1ms) capability each
 - YHM1107A: 3.6V OVP (in NO1/2)
 - YHM1107B: 5.8V OVP (in NO1/2)
 - YHM1107C: 9.6V OVP (in NO1/2)
- -106dB THD
- -88dB Off Isolation and -96dB Cross talk
- OTP (Over Temperature Protection)
- Robust ESD capability:
 - ±2kV HBM, ±1kV CDM

Applications

- Smart Phone, AR/VR Device, Tablet PC, Wearable etc.

General Description

The YHM1107 family are high voltage low Ron dual pole single throw and bidirectional on/off switches with Max 18V tolerance in COM1/2 and NO1/2 PIN.

The YHM1107 family combine enable and supply pin. The switch is on when device is powered. Connect VCCEN to GND to turn-off the switch. The topology of the switch allows the signal over VCCEN without the need of an external discrete components.

The YHM1107 family have excellent on-resistance matching (2mΩ Typical) between SPST switch and on-resistance flatness over whole signal range. These ensure perfect linearity and very low distortion for audio signal through.

YHM1107 does not have OVP function. YHM1107A supports 3.6V OVP in NO1/2. YHM1107B supports 5.8V OVP in NO1/2. YHM1107C supports 9.6V OVP in NO1/2. YHM1107A/B/C may do UART, CC, audio jack or other digital/analog interface protector.

The YHM1107 family come in a 2x3 array, 6-bump, 0.4mm pitch, 0.815mmx1.17mm wafer-level package (WLP).

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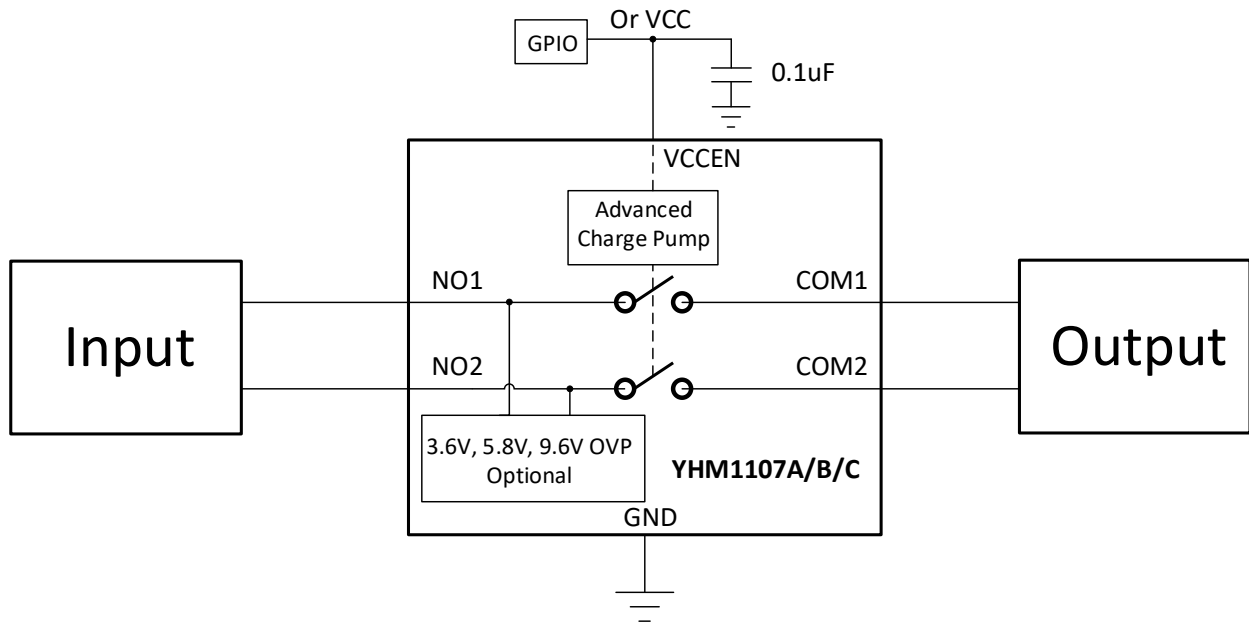


Fig 1. YHM1107 Internal Block and System Diagram

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YHM1107 Pin Configurations

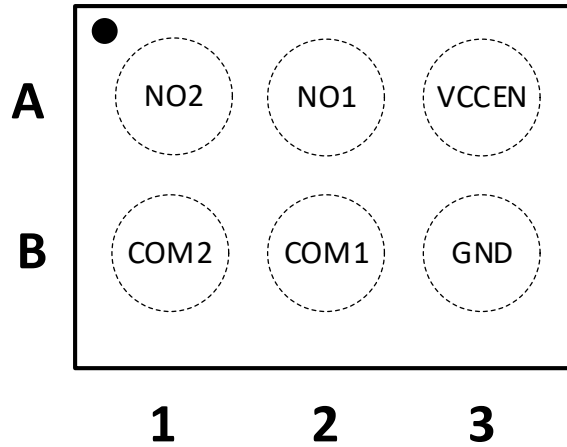


Fig 2. YHM1107 WLP-6 Pin Assignment(Top Through View)

YHM1107 WLP Pin Descriptions

WLP	Name	Description
A1	NO2	Normally Open Terminal for SPST Switch 2
A2	NO1	Normally Open Terminal for SPST Switch 1
A3	VCCEN	Supply Voltage Enable Input, bypass VCCEN to GND with 0.1uF capacitor as close to the chip as possible
B1	COM2	Common Terminal for SPST Switch 2
B2	COM1	Common Terminal for SPST Switch 1
B3	GND	Ground

Function Table

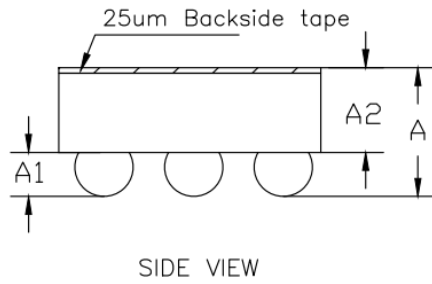
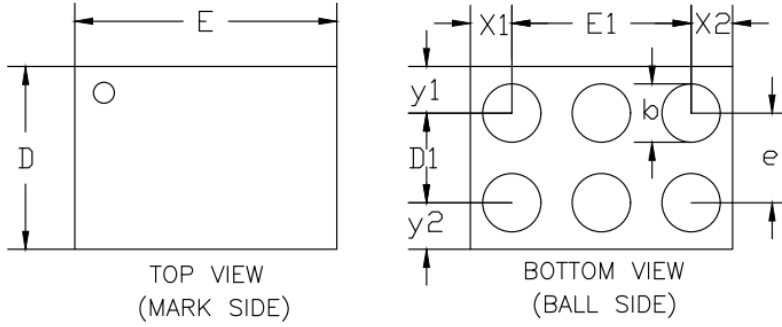
VCCEN	SPST SWITCH 1	SPST SWITCH 2
0	COM1 TO NO1 SWITCH OFF	COM2 TO NO2 SWITCH OFF
1	COM1 TO NO1 SWITCH ON	COM2 TO NO2 SWITCH ON

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Package Dimensions

WLCSP-6 0.815x1.17x0.574



COMMON DIMENSIONS
(UNITS OF MEASURE=MILLIMETER)

SYMBOL	MIN	NOM	MAX
A	0.534	0.574	0.614
A1	0.176	0.196	0.216
A2	0.358	0.378	0.398
D	0.795	0.815	0.835
D1	0.400BSC		
E	1.150	1.170	1.190
E1	0.800BSC		
b	0.240	0.260	0.280
e	0.400BSC		
x1	0.185 REF		
x2	0.185 REF		
y1	0.208 REF		
y2	0.208 REF		

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Ordering Information

Part Number	Temp Range	Pin Package	Top Mark	MOQ
YHM1107AW6T	-40°C to 85°C	6 WLCSP	YWW LOT	3000
YHM1107BW6T	-40°C to 85°C	6 WLCSP	YWW LOT	3000
YHM1107CW6T	-40°C to 85°C	6 WLCSP	YWW LOT	3000

T = Tape and reel.

YWW: Date Code. Y = year, WW = week.

LOT: The last three number of LOTID.