

Dual Output Load Switch With Reverse Current Blocking

Features

- Low Input Voltage: 1.6V to 5.5V.
- Enable and Disable Switch from EN pins.
 - YHM2512: Active Low.
 - YHM2512A: Active High.
- 20uA Supply Current
- 500nA Shutdown Current
- Ultra-Low On-State Resistance (R_{ON})
 - $R_{ON} = 76m\Omega$ at $V_{IN} = 5.0V$
 - $R_{ON} = TBDm\Omega$ at $V_{IN} = 3.6V$
 - $R_{ON} = TBDm\Omega$ at $V_{IN} = 2.5V$
 - $R_{ON} = 76m\Omega$ at $V_{IN} = 1.8V$
- 2A Maximum Total Continuous Current
- Quick Output Discharge
- Reverse Current Blocking for both channels.
- Tiny 0.67mm x 1.02mm 6-pin WLP with 0.35mm pitch

General Description

The YHM2512 is a dual output, ultra-small, low R_{ON} and active low or high(A version) load switch. The device contains a N-channel MOSFET that operates over an input voltage range of 1.6V to 5.5V. The switch is controlled by EN pins.

YHM2512 device has hard short protection for some abnormal situation.

An internal reverse voltage comparator disables the power switch when the output voltage is driven higher than the input to protect devices on the input side of the switch.

YHM2512 is available in a 6-bump, 0.35mm pitch, 0.67mm x1.02mm wafer-level package (WLP).

Applications

- Wearables
- Smartphones
- Tablets
- Portable Device

Internal Block diagram

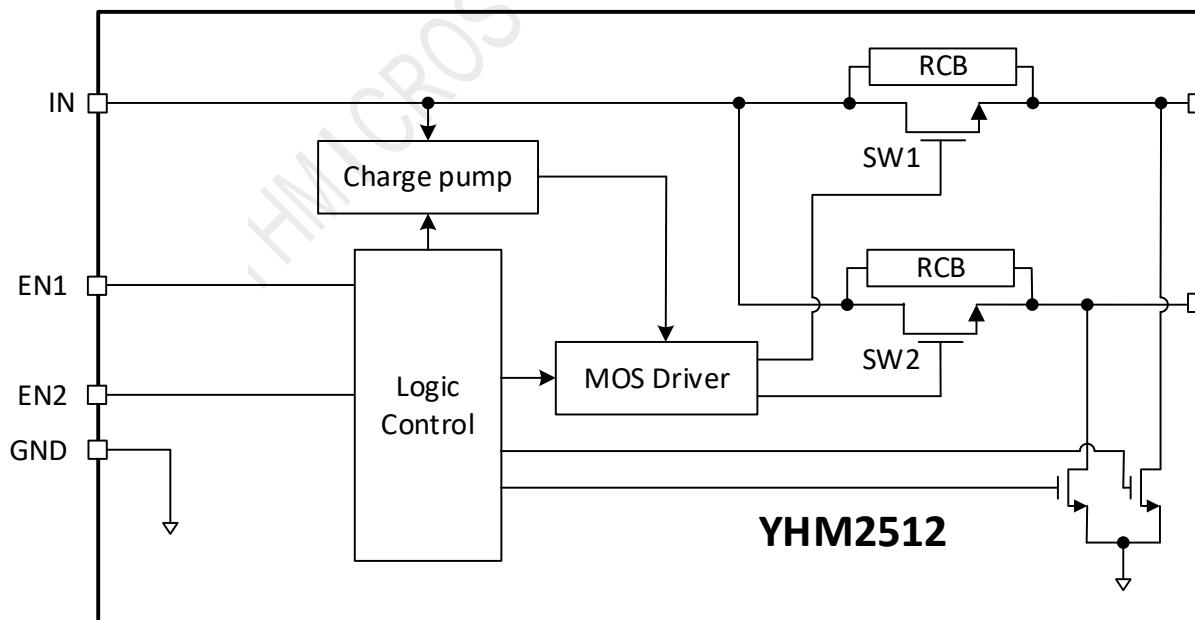


Figure 1. YHM2512 Internal Block Diagram

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YHM2512 Pin Configurations

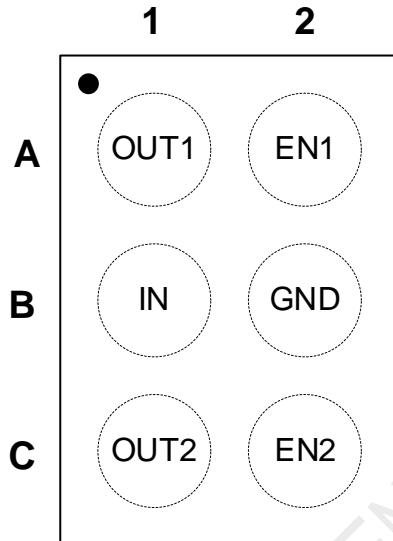


Figure 2. YHM2512 WLP-6 Pin Assignment (Top Through View)

YHM2512 WLP Pin Descriptions

WLP	Name	Description
A1	OUT1	Output 1. Internal pull down to GND when switch off.
B1	IN	Input and Power Supply. Bypass this input with 1 μ F or greater ceramic capacitor to ground.
C1	OUT2	Output 2. Internal pull down to GND when switch off.
A2	EN1	Enable control for output 1. • EN=0 close for YHM2512. • EN=1 close for YHM2512A.
B2	GND	Ground.
C2	EN2	Enable control for output 2. • EN=0 close for YHM2512. • EN=1 close for YHM2512A.

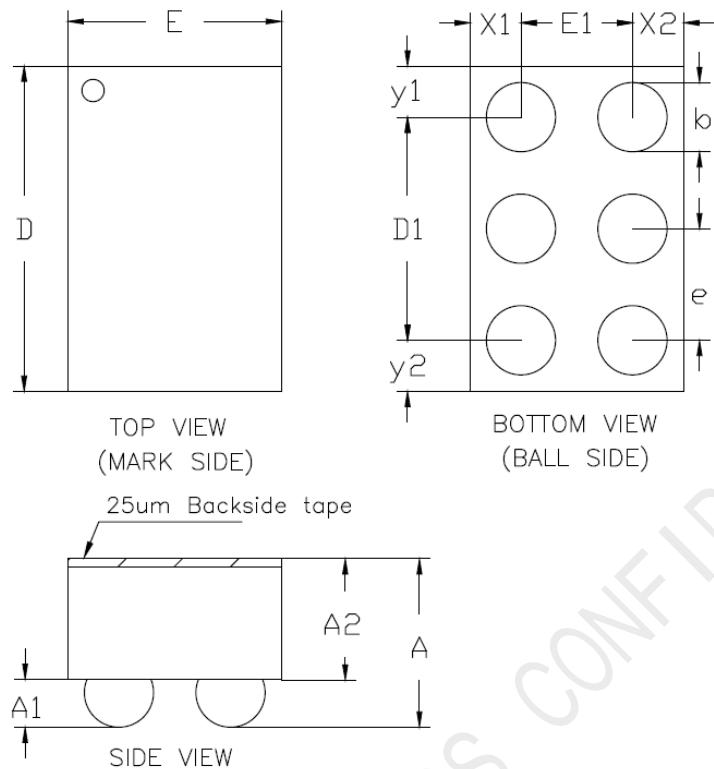
YHM2512

 YHMICROS
麦火微电子

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7 Package Dimensions(TBD)

WLCSP-6 0.67mm x 1.02mm



COMMON DIMENSIONS
(UNITS OF MEASURE=MILLIMETER)

SYMBOL	MIN	NOM	MAX
A	0.483	0.528	0.573
A1	0.130	0.150	0.170
A2	0.353	0.378	0.403
D	1.000	1.020	1.040
D1		0.700BSC	
E	0.650	0.670	0.690
E1		0.350BSC	
b	0.200	0.220	0.240
e		0.350BSC	
x1		0.160 REF	
x2		0.160 REF	
y1		0.160 REF	
y2		0.160 REF	

YHM2512



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8 Order Information

Part Number	Package	Active Logic	Top Mark (Note 1)	MOQ
YHM2512W6T	6 WLCSP	L	xxxL	TBD
YHM2512AW6T	6 WLCSP	H	xxxM	TBD

Note 1: The first three letters are Lot id and production date information.