

# LTspice Model

## 2ch High side switch

### ROHM SEMICONDUCTOR

### BD2066FJ-E2

#### Model Information

**Model** A macro model  
**Call Name** MDC\_BD2066FJ-E2\_LT  
**Pin Assign** 1:GND 2:IN 3:EN1 4:EN2 5:OC2 6:OUT2 7:OUT1 8:OC1  
**File List** Model Library MDC\_BD2066FJ-E2\_LT01.lib  
 Model Report MDC\_BD2066FJ-E2\_LT.pdf(this file)

**Verified Simulator Version** LTspice

#### Note

#### References

The information which was used for modeling is as follow:

[Data Sheet]

- Date/Version Rev.003
- Product name BD2066FJ-E2
- Company name ROHM SEMICONDUCTOR

[Characteristics listed]

- Characteristics
  - Normal Operation
  - Overcurrent Detection
    - the switch is turned on when the output is short-circuited
    - the output current gradually increases
    - the output is short-circuited with the switch on

#### Simulation Condition

This table shows the range of evaluated simulation range that was not occurs any convergence problems in this area.

Item	Condition	Unit
Temperature	25	deg C

**Model Functions Table**

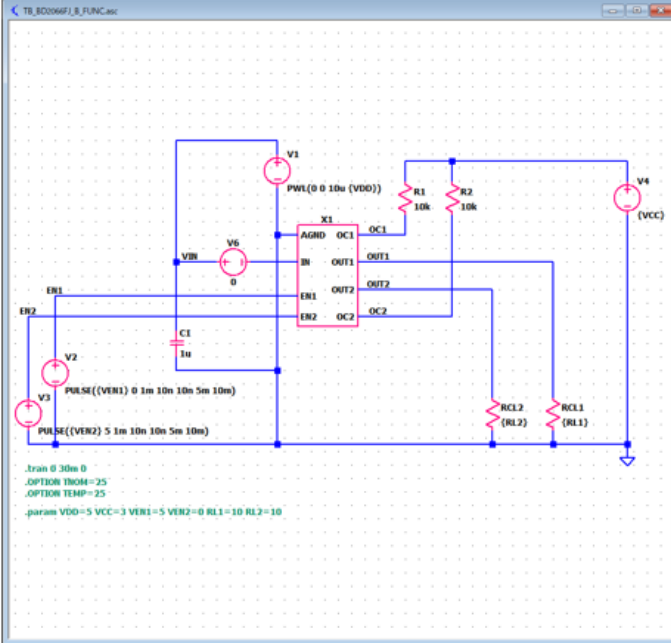
Functions	Implemented
Soft-Start	<input type="radio"/>
Overcurrent Detection	<input type="radio"/>
Current Limit	<input type="radio"/>
Under-Voltage Lockout	<input type="radio"/>
Open Drain External Notification Terminal	<input type="radio"/>
Flag Output Delay	<input type="radio"/>

Normal Operation

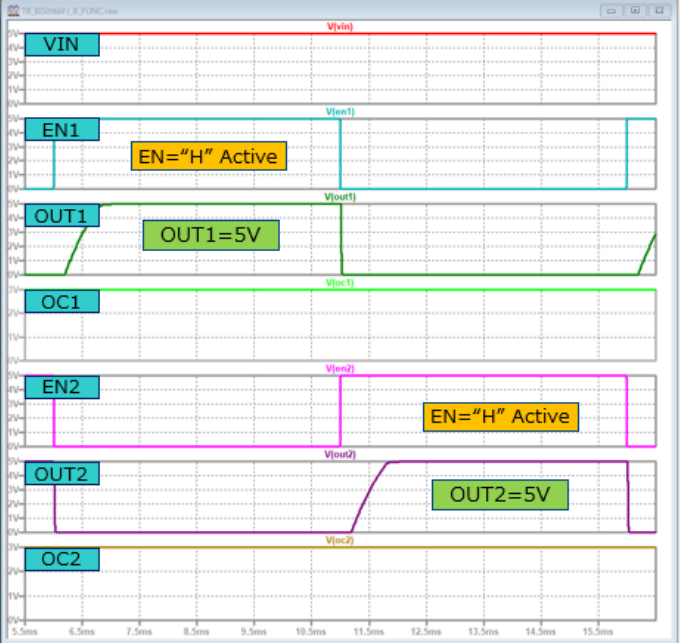
Simulation results are following.

Explanatory notes — : simulated

Test bench



Sim result



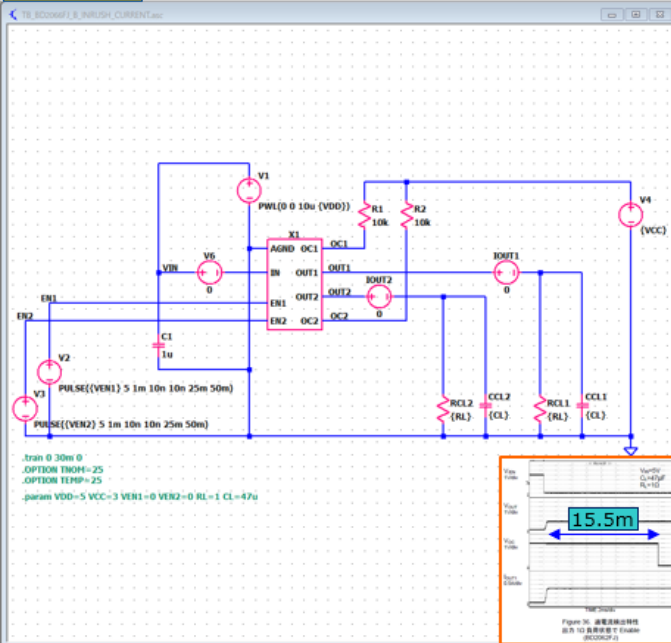
Overcurrent Detection

-- the switch is turned on when the output is short-circuited

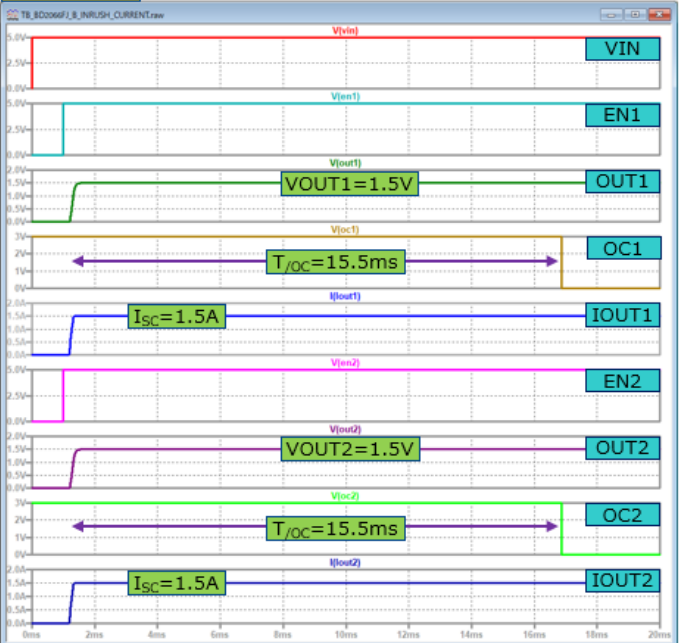
Simulation results are following.

Explanatory notes — : simulated

Test bench



Sim result



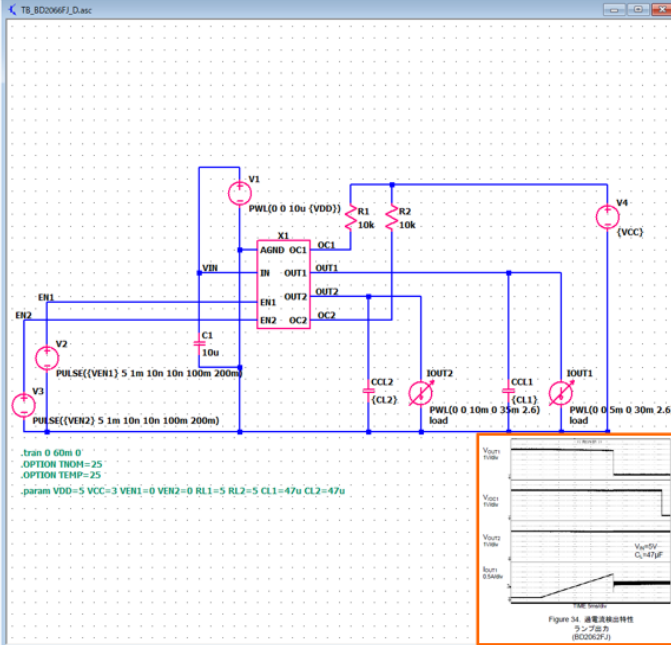
Overcurrent Detection

-- the output current gradually increases

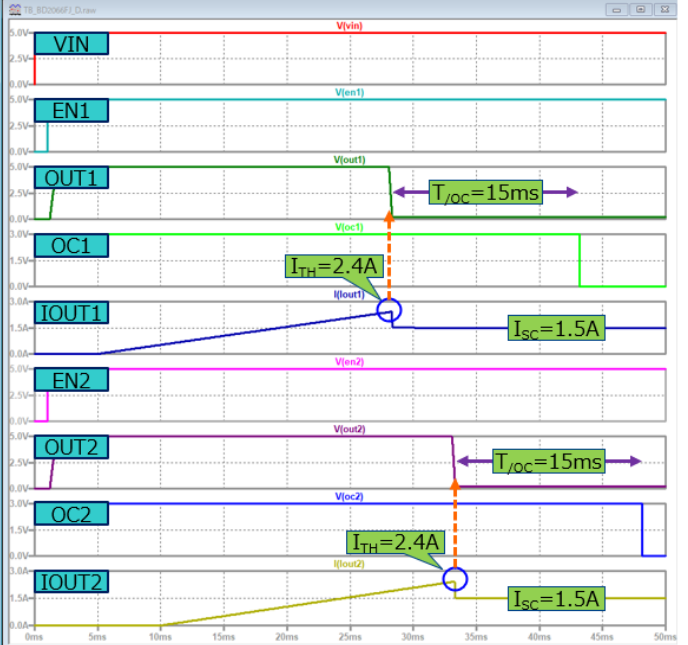
Simulation results are following.

Explanatory notes — : simulated

Test bench



Sim result



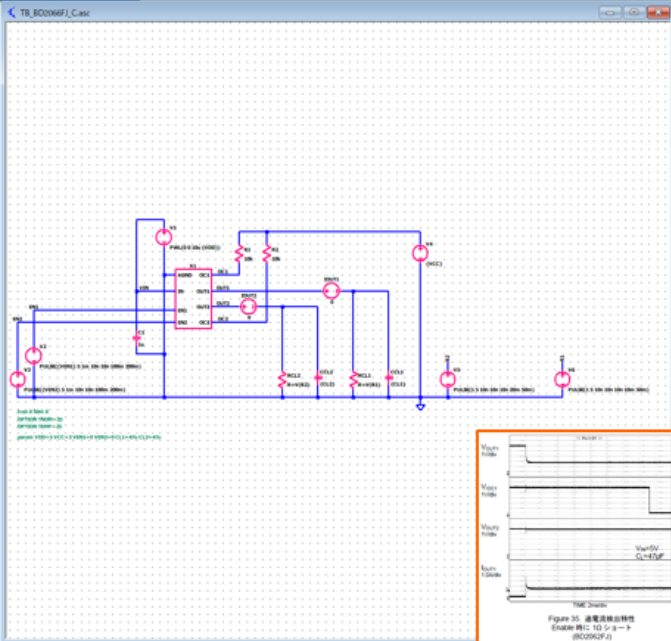
Overcurrent Detection

-- the output is short-circuited with the switch on

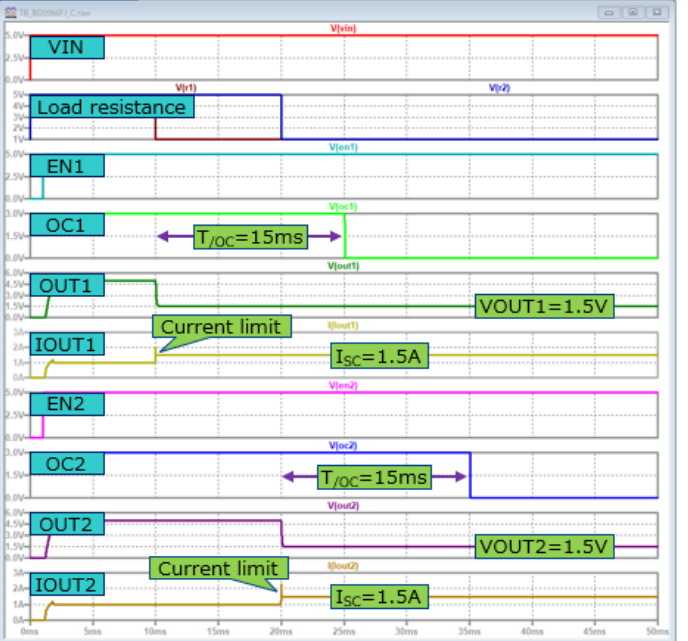
Simulation results are following.

Explanatory notes — : simulated

Test bench



Sim result



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