

# LTspice Model

## 2ch High side switch

### ROHM SEMICONDUCTOR

### BD2062FJ-E2

#### Model Information

**Model** A macro model  
**Call Name** MDC\_BD2062FJ-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\_BD2062FJ-E2\_LT01.lib  
 Model Report MDC\_BD2062FJ-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 BD2062FJ-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**

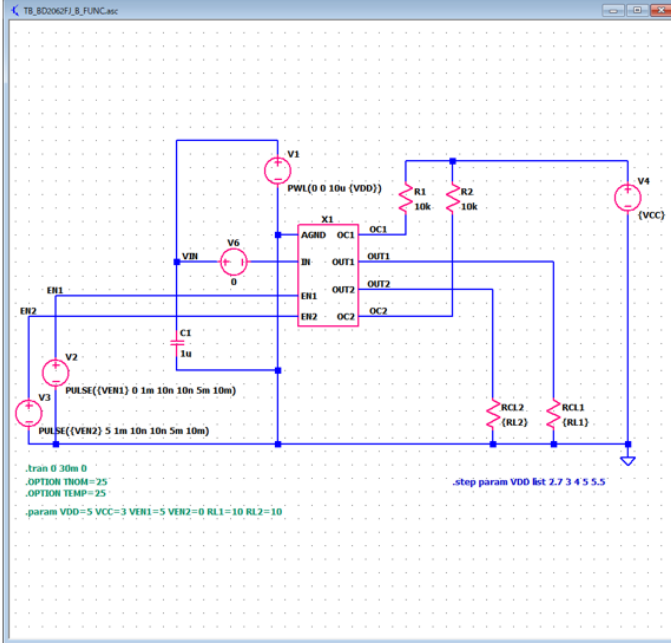
| Functions                                 | Implemented           |
|---|-----------------------|
| Soft-Start                                | <input type="radio"/> |
| Overcurrent Detection                     | <input type="radio"/> |
| Current Limit                             | <input type="radio"/>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

Normal Operation

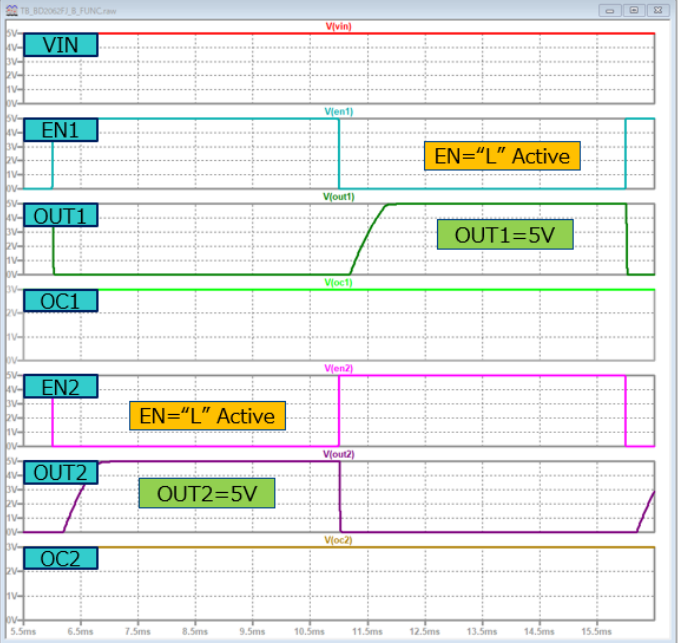
Simulation results are following.

Explanatory notes — : simulated

Test bench



Sim result



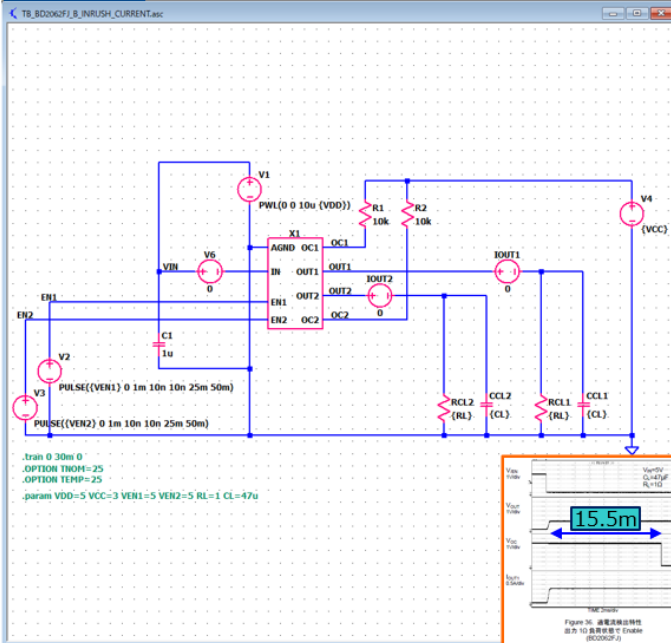
Overcurrent Detection

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

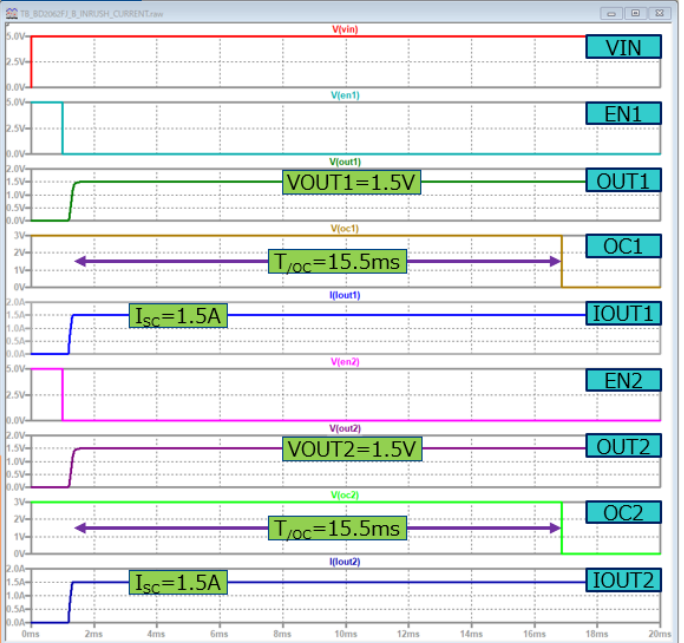
Simulation results are following.

Explanatory notes — : simulated

Test bench



Sim result



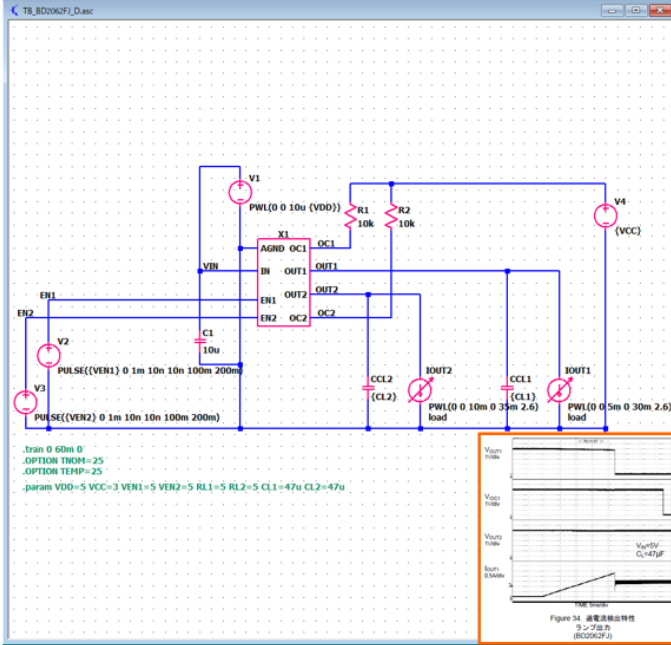
Overcurrent Detection

-- the output current gradually increases

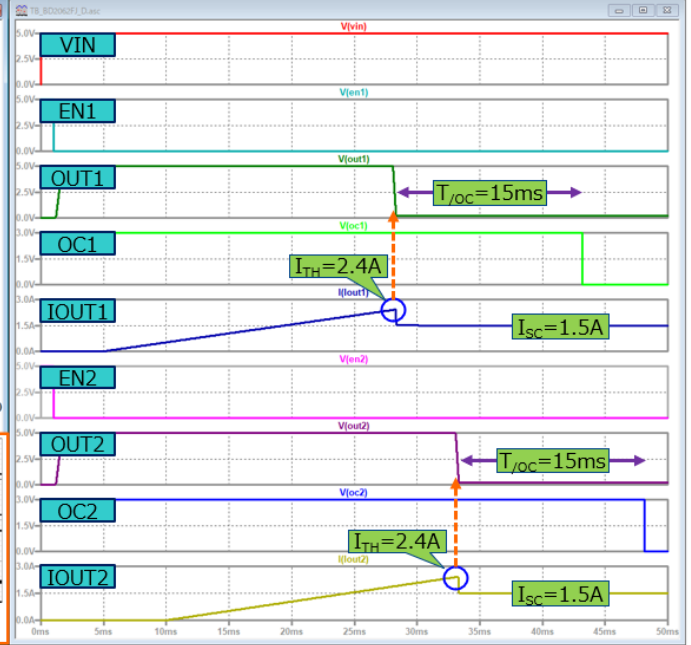
Simulation results are following.

Explanatory notes — : simulated

Test bench



Sim result



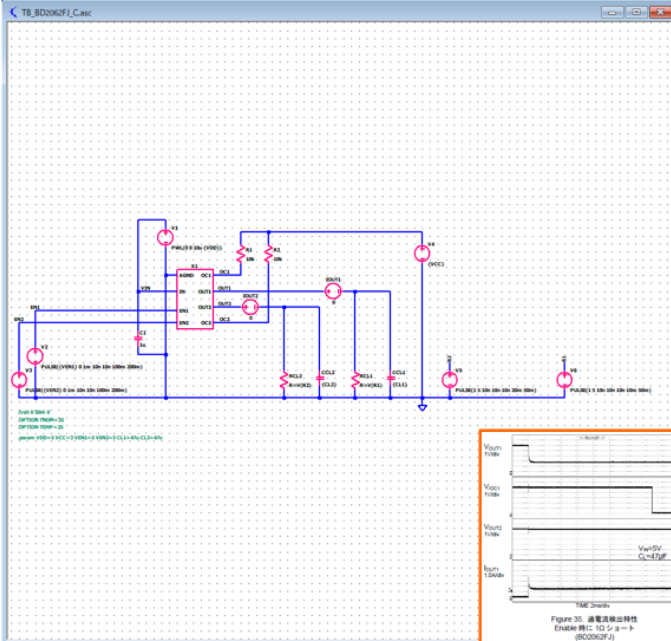
Overcurrent Detection

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

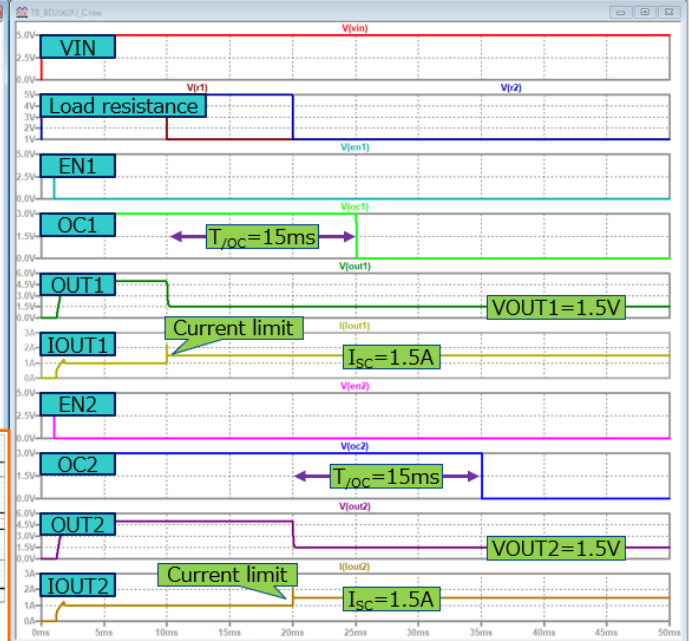
Simulation results are following.

Explanatory notes — : simulated

Test bench



Sim result



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