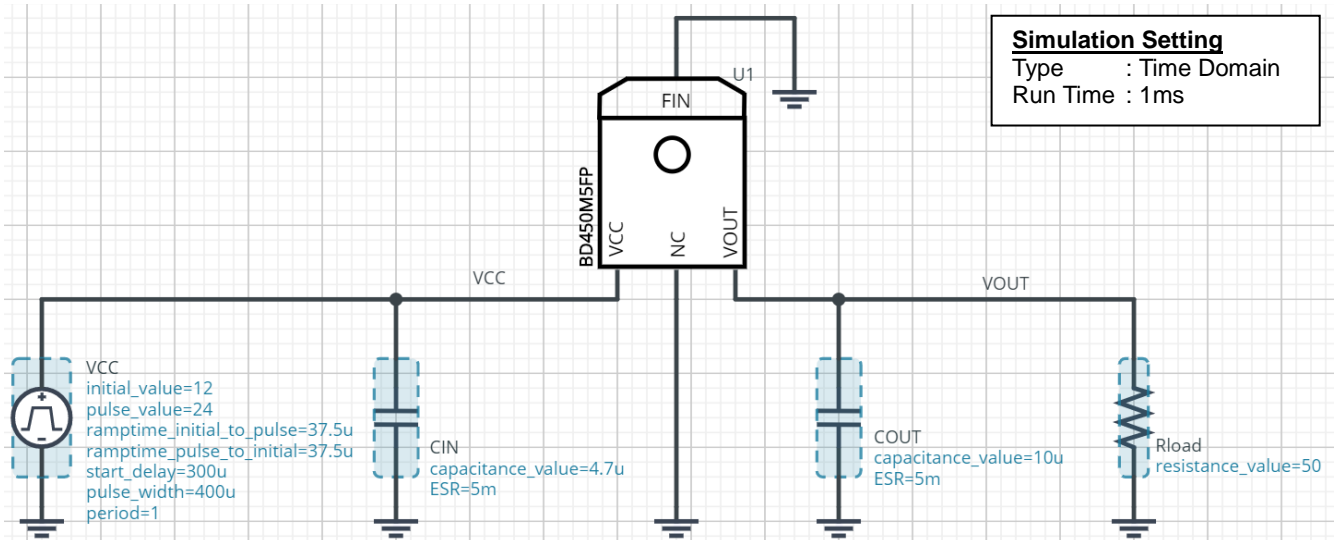


500mA 5.0V Output LDO Regulators BD450M5FP / Line Response

This Circuit simulates the Line Response.
You can check the fluctuation of the output voltage when the input voltage is abruptly changed.

Simulation Schematic



Peripheral Components

| Instance Name | Type | Parameter | Default Value | Variable Range | | Unit |
|---------------|-----------|-------------------|---------------|----------------|-----------------------------------|------|
| | | | | Min | Max | |
| CIN | Capacitor | capacitance_value | 4.7 | 0.1 | no constraint ^(Note 1) | μF |
| | | ESR | 5 | 1 | 10000 | mΩ |
| COUT | Capacitor | capacitance_value | 10 | 10 | no constraint ^(Note 1) | μF |
| | | ESR | 5 | 1 | 10000 | mΩ |

Simulation Conditions

| Instance Name | Type | Parameter | Default Value | Variable Range | | Unit |
|---------------|----------------|---------------------------|---------------|-----------------------------------|------|------|
| | | | | Min | Max | |
| VCC | Voltage Source | initial_value | 12 | 5.5 | 42 | V |
| | | pulse_value | 24 | 5.5 | 42 | V |
| | | ramptime_initial_to_pulse | 37.5 | no constraint ^(Note 1) | | μs |
| | | ramptime_pulse_to_initial | 37.5 | no constraint ^(Note 1) | | μs |
| | | start_delay | 300 | no constraint ^(Note 1) | | μs |
| | | pulse_width | 400 | no constraint ^(Note 1) | | μs |
| | | period | 1 | no constraint ^(Note 1) | | s |
| Rload | Resistor | resistance_value | 50 | 10 | 100M | Ω |

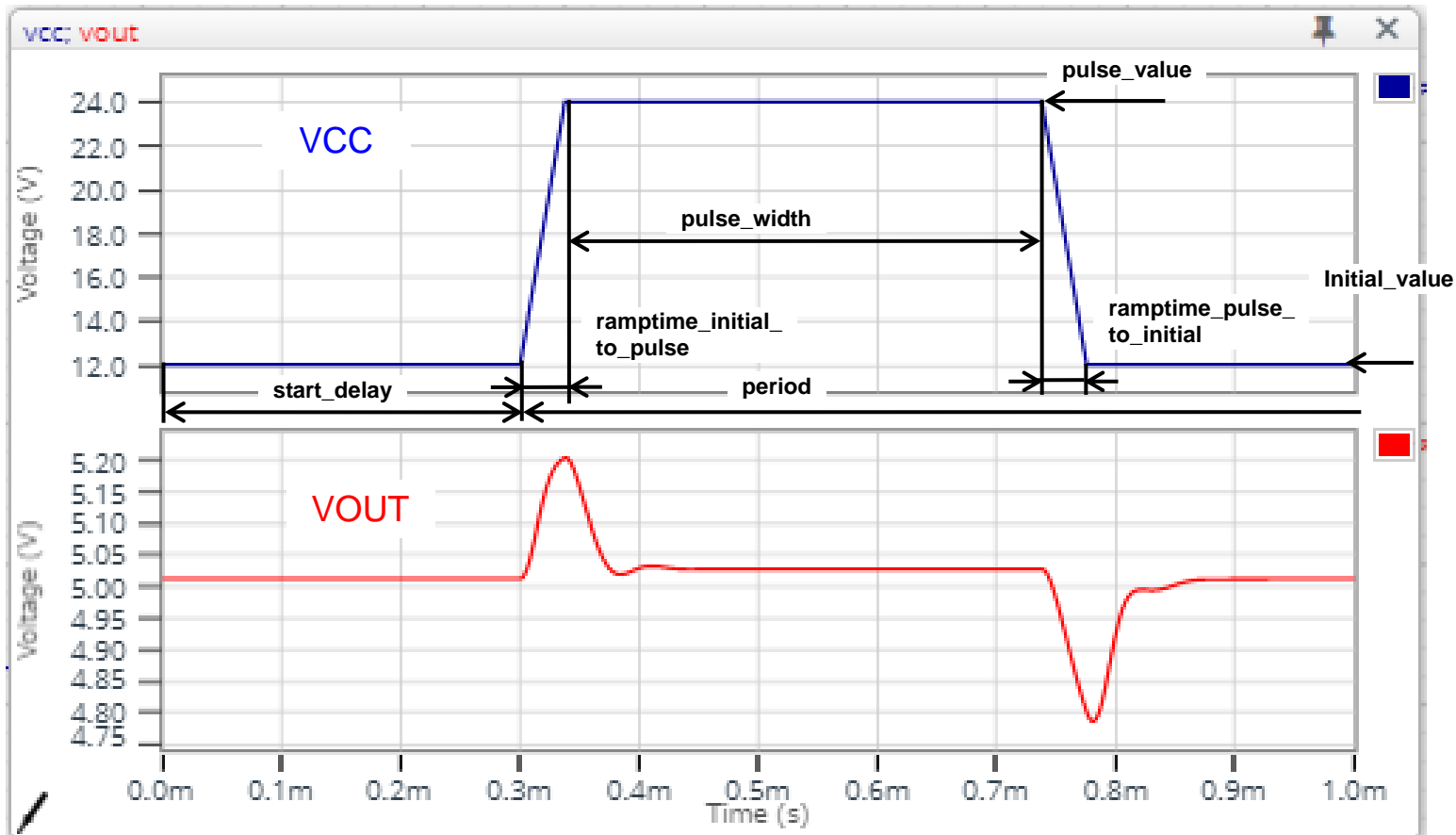
(Note 1) This is a constraint of the simulation settings and does not guarantee the operation of the IC.

Caution 1: The values from the simulation results are not guaranteed. Please use these results as a guide for your design.

Caution 2: These model characteristics are specifically at Ta=25°C. Thus, the simulation result with temperature variances may significantly differ from the result with the one done at actual application board (actual measurement).

Caution 3: Please refer to the datasheet for details of the technical information

Simulation Result



Notes

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