

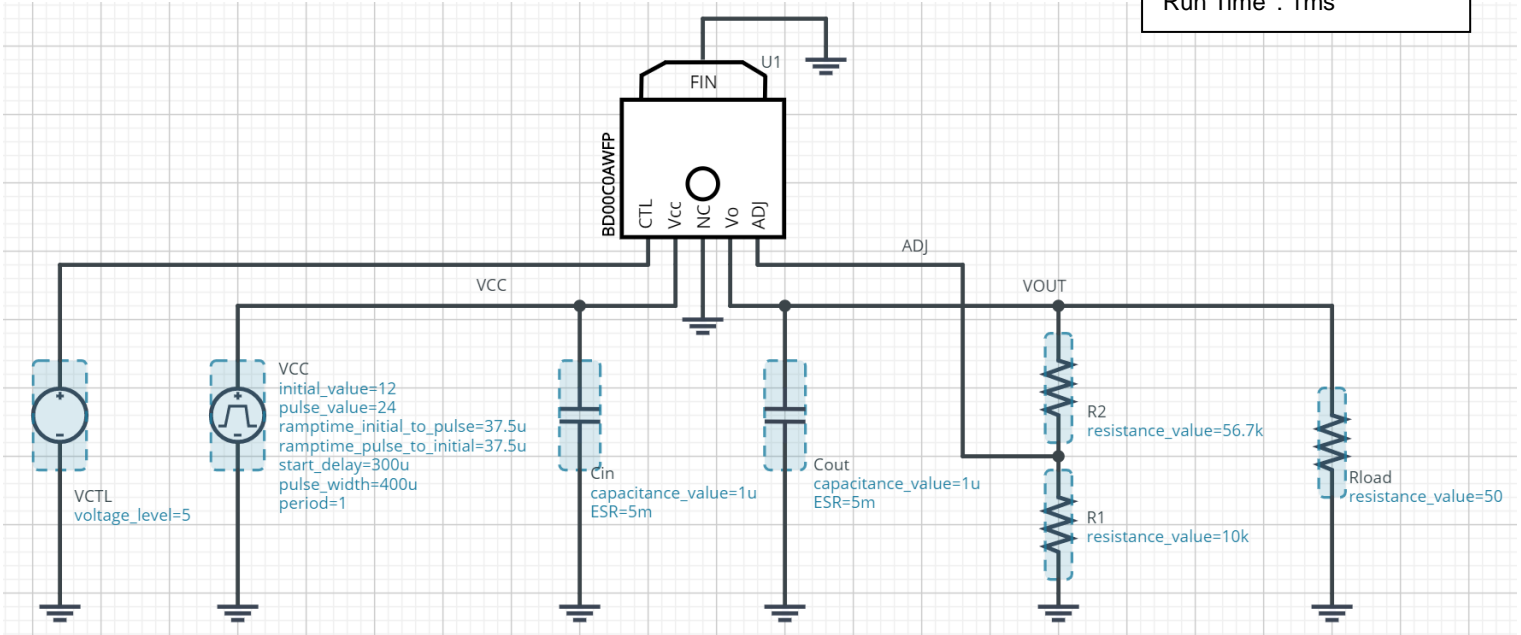
## 35V Voltage Resistance 1A LDO Regulators BD00C0AWFP / Line Response

This Circuit simulates the Line Response.

You can check the fluctuation of the output voltage when the input voltage is abruptly changed.

### Simulation Schematic

**Simulation Setting**  
 Type : Time Domain  
 Run Time : 1ms



### Peripheral Components

Instance Name	Type	Parameter	Default Value	Variable Range		Unit
				Min	Max	
CIN	Capacitor	capacitance_value	1	1	no constraint <sup>(Note 1)</sup>	μF
		ESR	5	1	10000	mΩ
COUT	Capacitor	capacitance_value	1	1	no constraint <sup>(Note 1)</sup>	μF
		ESR	5	1	10000	mΩ
R1	Resistor	resistance_value	10	5	10	kΩ
R2	Resistor	resistance_value	56.7	no constraint <sup>(Note 1)</sup>		kΩ

(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).

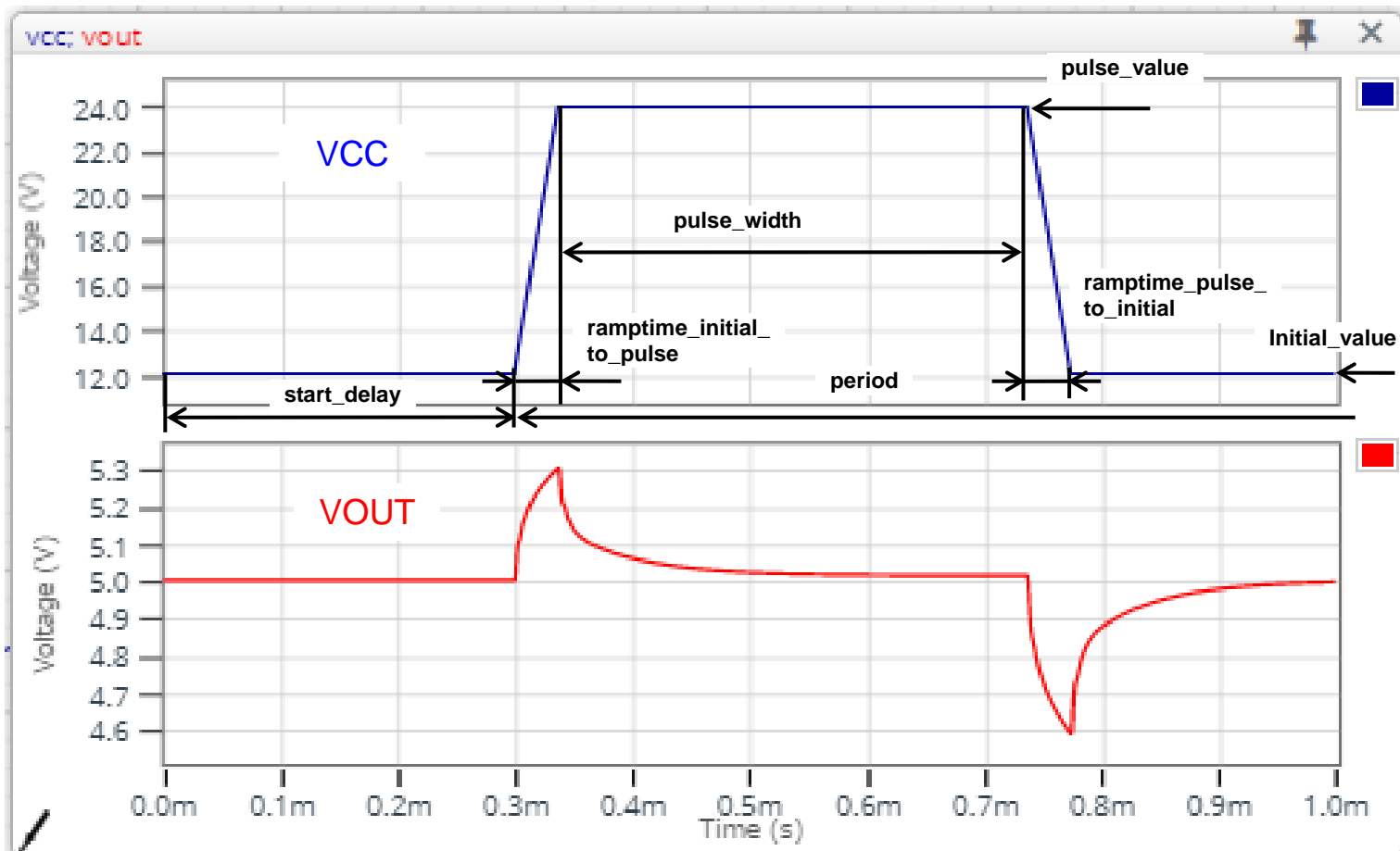
**Caution 3:** Please refer to the datasheet for details of the technical information

**Simulation Conditions**

Instance Name	Type	Parameter	Default Value	Variable Range		Unit
				Min	Max	
VCC	Voltage Source	initial_value	12	4	26.5	V
		pulse_value	24	4	26.5	V
		ramptime_initial_to_pulse	37.5	no constraint <sup>(Note 1)</sup>		μs
		ramptime_pulse_to_initial	37.5	no constraint <sup>(Note 1)</sup>		μs
		start_delay	300	no constraint <sup>(Note 1)</sup>		μs
		pulse_width	400	no constraint <sup>(Note 1)</sup>		μs
		period	1	no constraint <sup>(Note 1)</sup>		s
VCTL	Voltage Source	voltage_level	5	0	26.5	V
Rload	Resistor	resistance_value	50	5	100M	Ω

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

**Simulation Result**



## Notes

- 1) The information contained herein is subject to change without notice.
- 2) Before you use our Products, please contact our sales representative and verify the latest specifications :
- 3) Although ROHM is continuously working to improve product reliability and quality, semiconductors can break down and malfunction due to various factors.  
Therefore, in order to prevent personal injury or fire arising from failure, please take safety measures such as complying with the derating characteristics, implementing redundant and fire prevention designs, and utilizing backups and fail-safe procedures. ROHM shall have no responsibility for any damages arising out of the use of our Products beyond the rating specified by ROHM.
- 4) Examples of application circuits, circuit constants and any other information contained herein are provided only to illustrate the standard usage and operations of the Products. The peripheral conditions must be taken into account when designing circuits for mass production.
- 5) The technical information specified herein is intended only to show the typical functions of and examples of application circuits for the Products. ROHM does not grant you, explicitly or implicitly, any license to use or exercise intellectual property or other rights held by ROHM or any other parties. ROHM shall have no responsibility whatsoever for any dispute arising out of the use of such technical information.
- 6) The Products specified in this document are not designed to be radiation tolerant.
- 7) For use of our Products in applications requiring a high degree of reliability (as exemplified below), please contact and consult with a ROHM representative : transportation equipment (i.e. cars, ships, trains), primary communication equipment, traffic lights, fire/crime prevention, safety equipment, medical systems, servers, solar cells, and power transmission systems.
- 8) Do not use our Products in applications requiring extremely high reliability, such as aerospace equipment, nuclear power control systems, and submarine repeaters.
- 9) ROHM shall have no responsibility for any damages or injury arising from non-compliance with the recommended usage conditions and specifications contained herein.
- 10) ROHM has used reasonable care to ensure the accuracy of the information contained in this document. However, ROHM does not warrants that such information is error-free, and ROHM shall have no responsibility for any damages arising from any inaccuracy or misprint of such information.
- 11) Please use the Products in accordance with any applicable environmental laws and regulations, such as the RoHS Directive. For more details, including RoHS compatibility, please contact a ROHM sales office. ROHM shall have no responsibility for any damages or losses resulting non-compliance with any applicable laws or regulations.
- 12) When providing our Products and technologies contained in this document to other countries, you must abide by the procedures and provisions stipulated in all applicable export laws and regulations, including without limitation the US Export Administration Regulations and the Foreign Exchange and Foreign Trade Act.
- 13) This document, in part or in whole, may not be reprinted or reproduced without prior consent of ROHM.



Thank you for your accessing to ROHM product informations.  
More detail product informations and catalogs are available, please contact us.

**ROHM Customer Support System**

<http://www.rohm.com/contact/>