

ADS Model

shunt regulator

Texas Instruments

TL432AIDBVR

Model Information

Model A macro model
Call Name MDC_TL432AIDBVR_AD
Pin Assign 1:NC 2:ANODE 3:NC 4:CATHODE 5:REF
File List Model Library MDC_TL432AIDBVR_AD.lib
 Model Report MDC_TL432AIDBVR_AD.pdf(this file)
Verified Simulator Version ADS 2022
Note

References

The information which was used for modeling is as follow:

[Data Sheet]

- Date/Version JAJ5443Q – AUGUST 2004 – REVISED JULY 2022
- Product name TL432
- Company name Texas Instruments Incorporated

[Characteristics listed]

- Characteristics Icathode-VKA
VA-Freq
Icathde(off)
Transient

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	RANK	Implemented
Icathode-VKA	1	○
VA-Freq	1	○
Icathde(off)	1	○

Icathode-VKA

Referred to Data Sheet



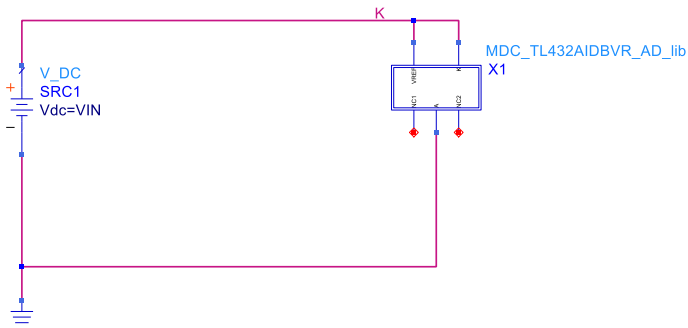
DC
DC1



Options
Options1
Temp=25
Tnom=25
V_RelTol=
V_AbsTol=
I_RelTol=
I_AbsTol=
GiveAllWarnings=yes
MaxWarnings=10

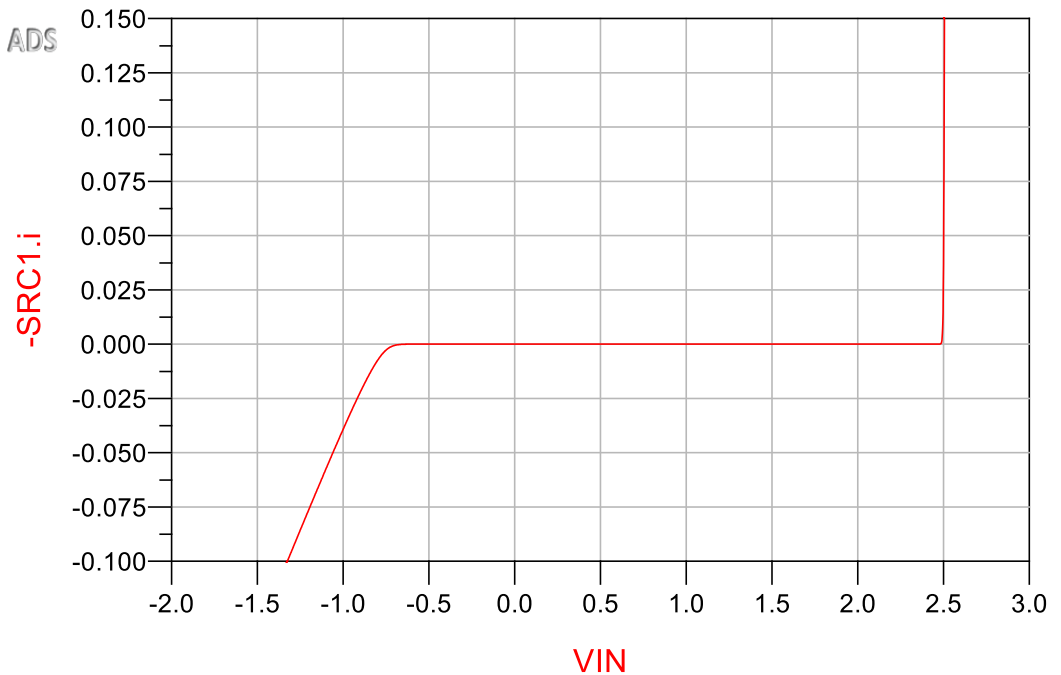


VAR
VAR1
VIN=0



Simulation results are following.
Explanatory notes — : simulated

Icathode-VKA



VA-Freq

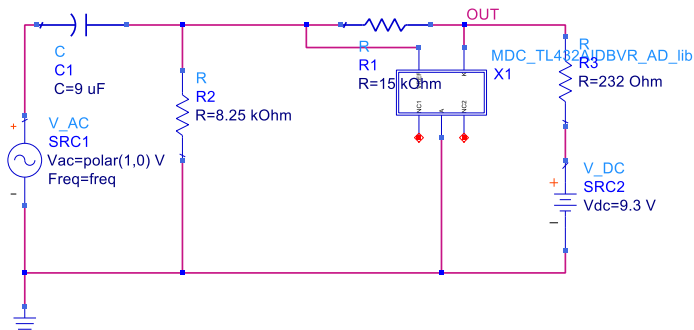
Referred to Data Sheet



AC
 AC1
 Start=1.0 kHz
 Stop=10 MHz
 Step=

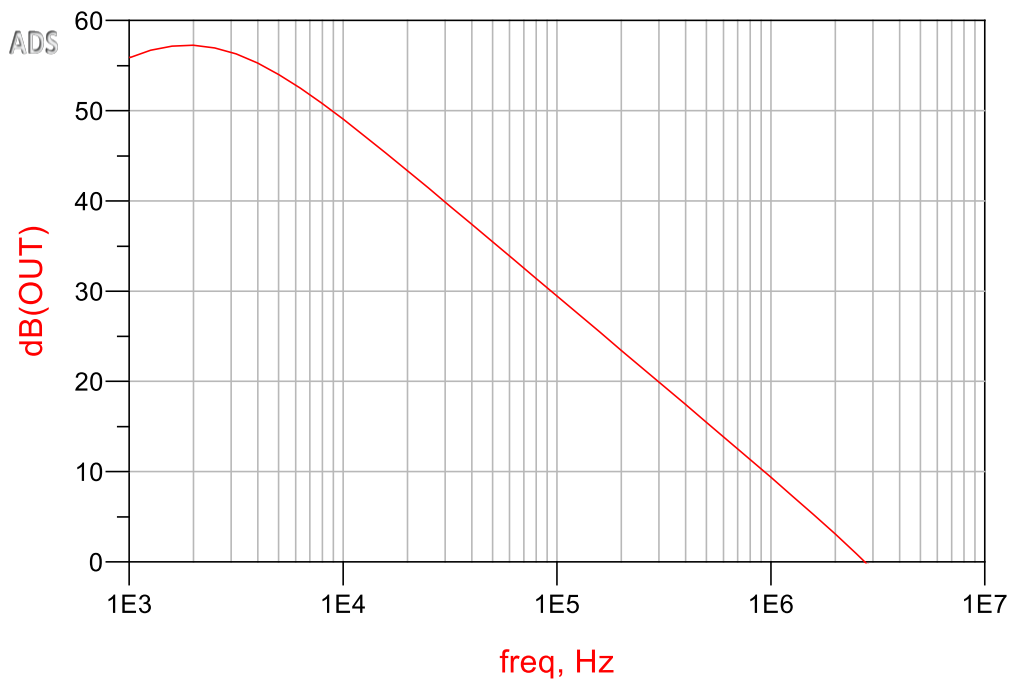


Options
 Options1
 Temp=25
 Tnom=25
 V_RelTol=
 V_AbsTol=
 I_RelTol=
 I_AbsTol=
 GiveAllWarnings=yes
 MaxWarnings=10



Simulation results are following.
 Explanatory notes — : simulated

VA-Freq



Icathde(off)

Referred to Data Sheet



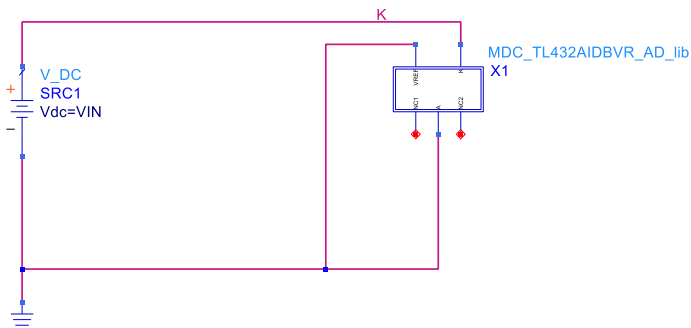
DC
DC1



Options
Options1
Temp=25
Tnom=25
V_RelTol=
V_AbsTol=
I_RelTol=
I_AbsTol=
GiveAllWarnings=yes
MaxWarnings=10



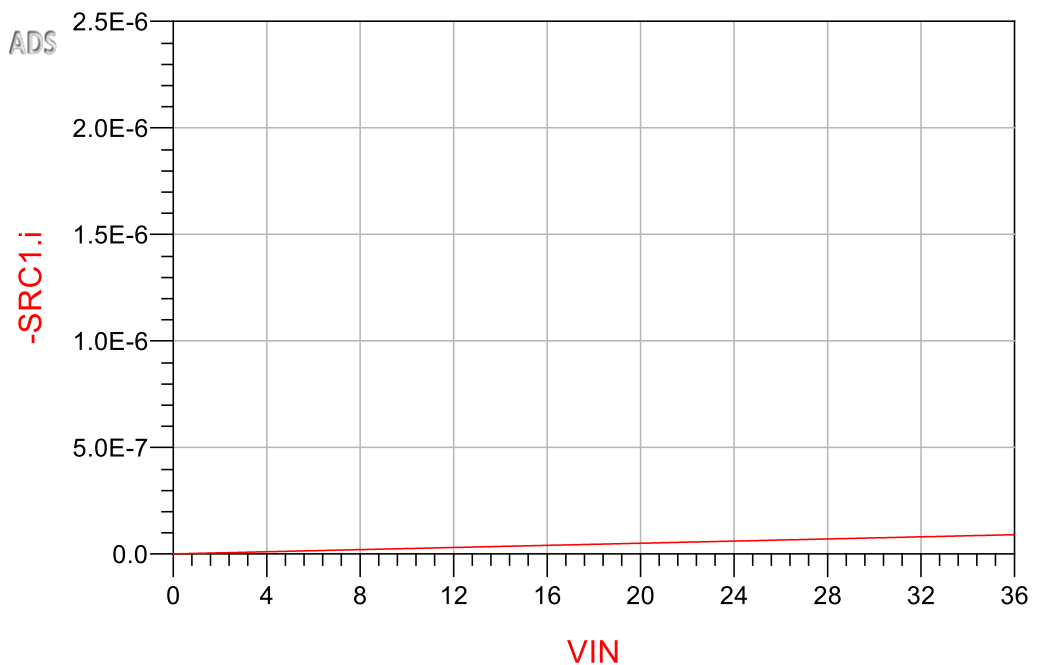
VAR
VAR1
VIN=0



Simulation results are following.

Explanatory notes — : simulated

Icathde(off)



Transient

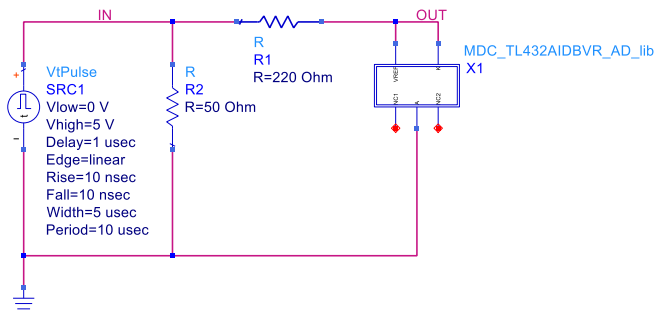
Referred to Data Sheet

OPTIONS

Options
Options1
Temp=25
Tnom=25
V_RelTol=
V_AbsTol=
I_RelTol=
I_AbsTol=
GiveAllWarnings=yes
MaxWarnings=10

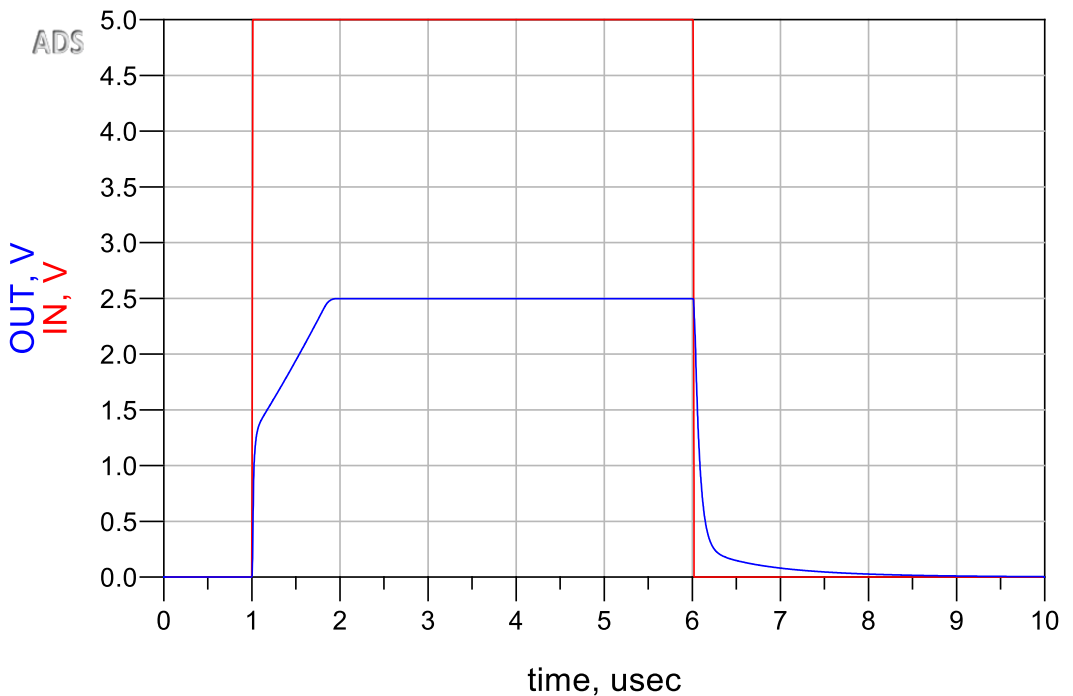
TRANSIENT

Tran
Tran1
StopTime=10 usec
MaxTimeStep=1.0 nsec



Simulation results are following.
Explanatory notes — : simulated

Transient



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