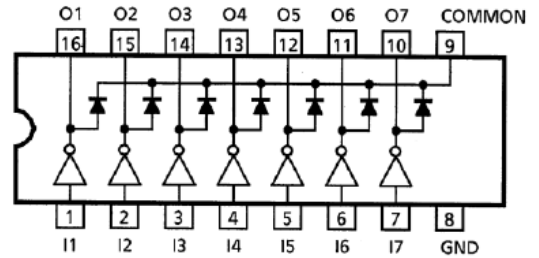


PSpice Model ARRAY TOSHIBA TBD62003AFWG

(top view)



Model Information

Model An original macro model
Call Name MDC_TBD62003AFWG_PS
Pin Assign 1:11 2:12 3:13 4:14 5:15 6:16 7:17 8:GND 9:COM 10:O7 11:O6 12:O5 13:O4 14:O3 15:O2 16:O1
File List Model Library MDC_TBD62003AFWG_PS01.lib
 Model Report MDC_TBD62003AFWG_PS.pdf (this file)

Verified Simulator Version PSpice version 17.2
Note

References

The information which was used for modeling is as follow:

[Data Sheet]

- Date/Version 2015-07-24
- Product name TBD62003AFWG
- Company name Toshiba Corporation
- Characteristics I_{leak}V_{out}[Temp], R_{on}l_{out}[Temp], I_{in}V_{in}[Temp], I_{in}V_{in}[Temp]², I_rV_r[Temp], V_fI_f[Temp], S_wV_{out}[Tname]

Simulation Range

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

| Item | Range | | | Unit |
|-------------|-------|----|------|-------|
| | Min. | | Max. | |
| Temperature | -55 | to | 150 | deg C |

ARRAY

○ : Implemented
 × : Not Implemented
 — : Not applicable

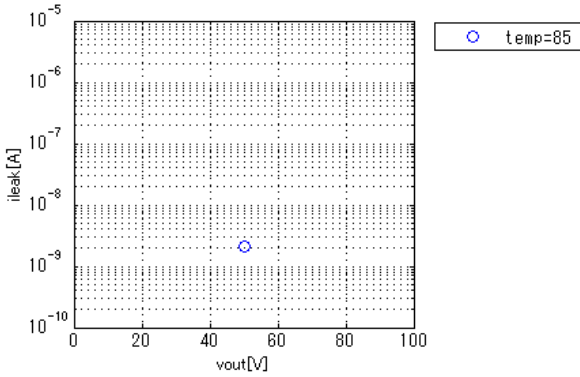
Model Functions Table

| | | RANK=1 |
|------------|------|-------------|
| Functions | RANK | Implemented |
| Ileak-Vout | 1 | ○ |
| Ron-Iout | 1 | ○ |
| Iin-Vin | 1 | ○ |
| Ir-Vr | 1 | ○ |
| Vf-If | 1 | ○ |
| Sw-Vout | 1 | ○ |

Simulation results are following.
 Explanatory notes — : simulated

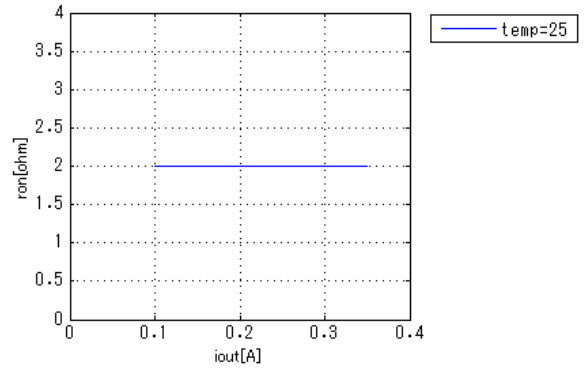
IleakVout[Temp]

vin = 0V, icom = 0A



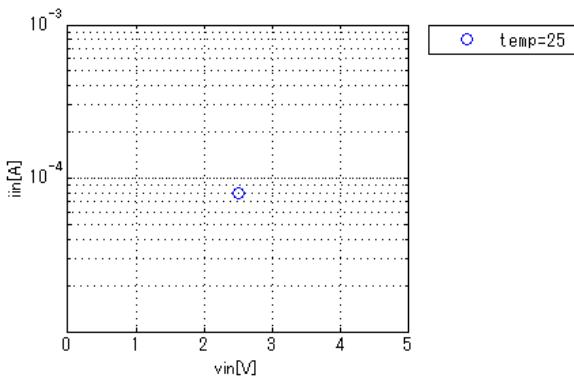
RonIout[Temp]

vin = 5V, icom = 0A



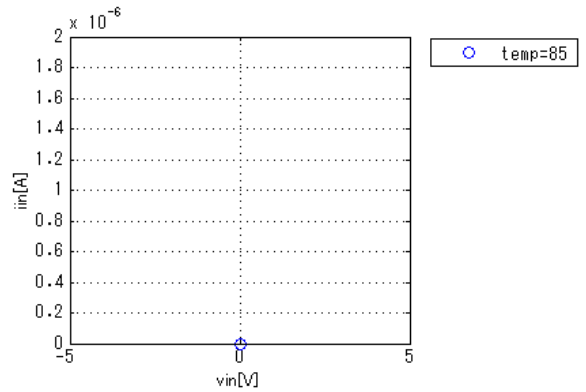
IinVin[Temp]

iout = 0A, icom = 0A



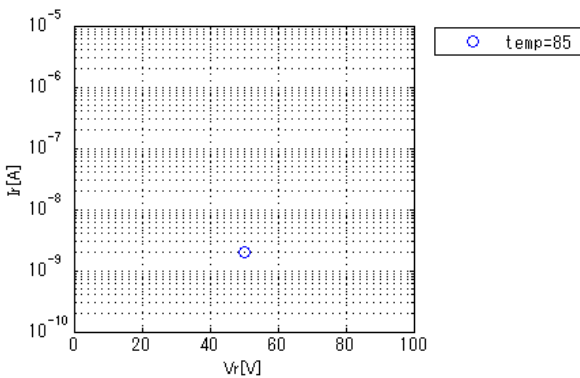
IinVin[Temp]2

iout = 0A, icom = 0A



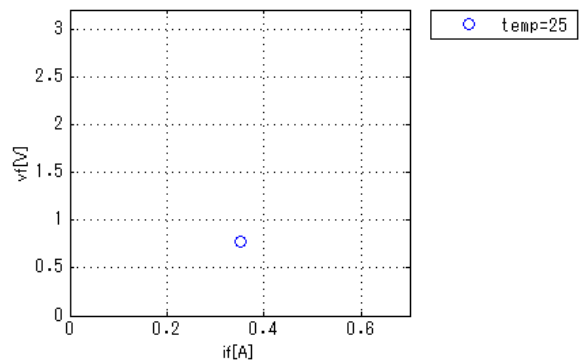
Irvr[Temp]

iin = 0A, ignd = 0A



Vfif[Temp]

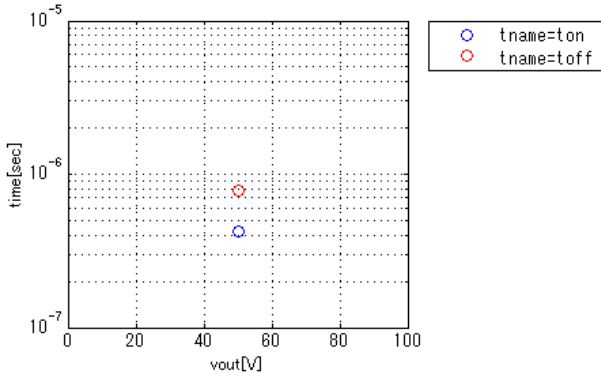
iin = 0A, ignd = 0A



Simulation results are following.
 Explanatory notes — : simulated

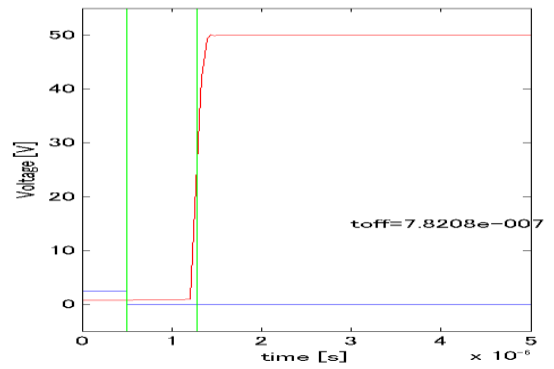
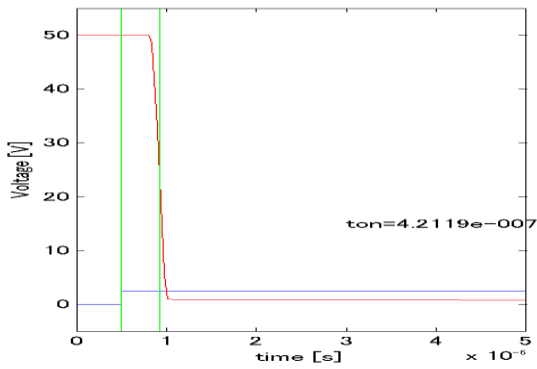
SwVout[Tname]

vin = 2.5V, RG = 5ohm, RL = 125ohm, icom = 0A, temp = 25degC



Switching Waveform (Blue : INPUT Red : OUTPUT)

vin = 2.5V, vout = 50V, RG = 5ohm, RL = 125ohm, icom = 0A, temp = 25degC



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