

# LTspice Model Comparator STMicroelectronics TS391ILT

## Model Information

<b>Model</b>	A macro model
<b>Call Name</b>	MDC_TS391ILT_LT
<b>Pin Assign</b>	1:OUT 2:VCC- 3:IN- 4:IN+ 5:VCC+
<b>File List</b>	Model Library MDC_TS391ILT_LT.lib Model Report MDC_ TS391ILT_LTpdf(this file)
<b>Verified Simulator Version</b>	LTspice XVII

### Note

### References

The information which was used for modeling is as follow:

[Data Sheet]

- Date/Version DS1551 - Rev 10 - January 2021
- Product name TS391
- Company name STMicroelectronics

[Characteristics listed]

- Characteristics
  - Input Offset Voltage
  - Input Offset Current
  - Supply Current
  - Input Current
  - Propagation delay

### 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

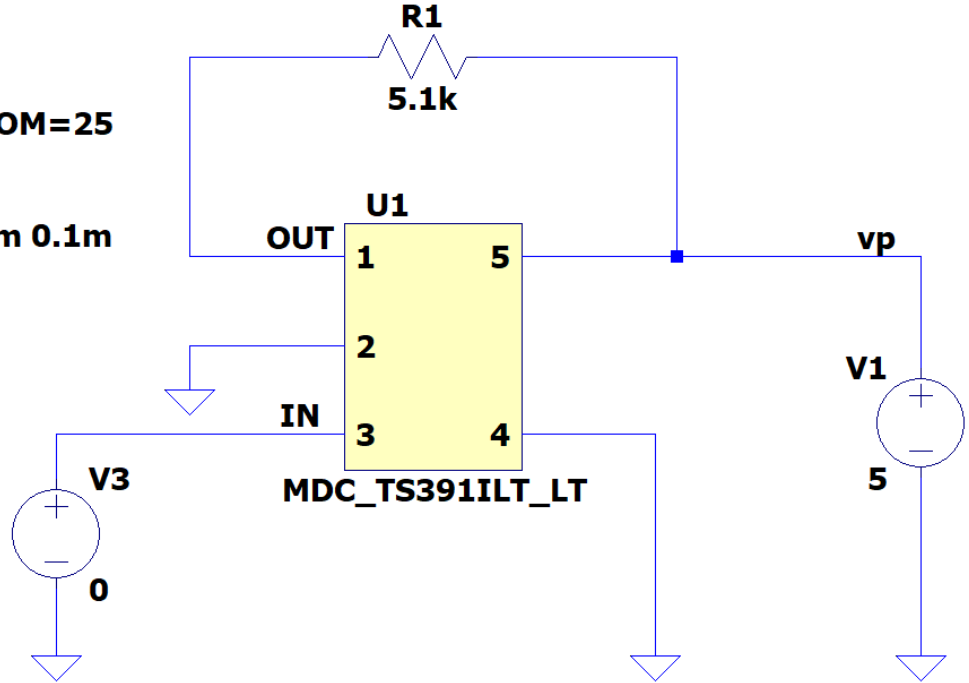
○ : Implemented  
 × : Not Implemented  
 – : Not applicable

**Model Functions Table**
**RANK=1**

Functions	RANK	Implemented
Open Loop Gain	1	–
Input Offset Voltage	1	○
Input Offset Current	1	○
Bias Current	1	○
Maximum output amplitude voltage	1	–
Propagation delay	1	○

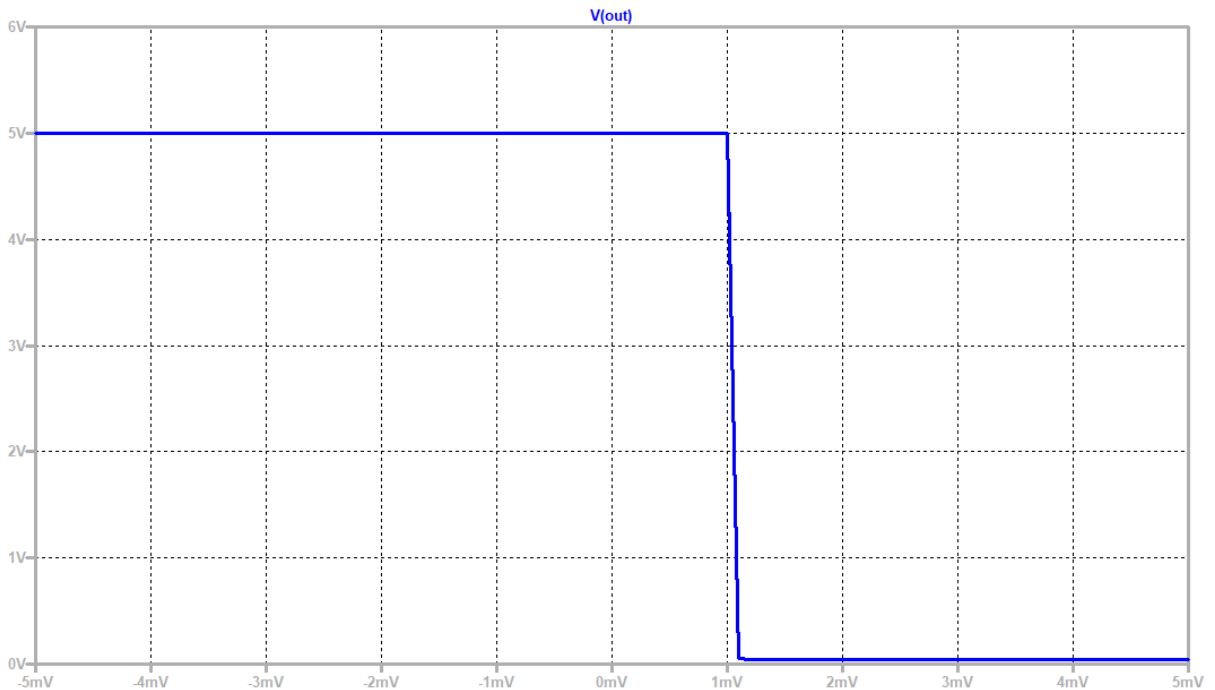
**Input Offset Voltage Testbench  
Referred to Data Sheet**

```
.OPTION TNOM=25
.TEMP 25
.dc V3 -5m 5m 0.1m
```



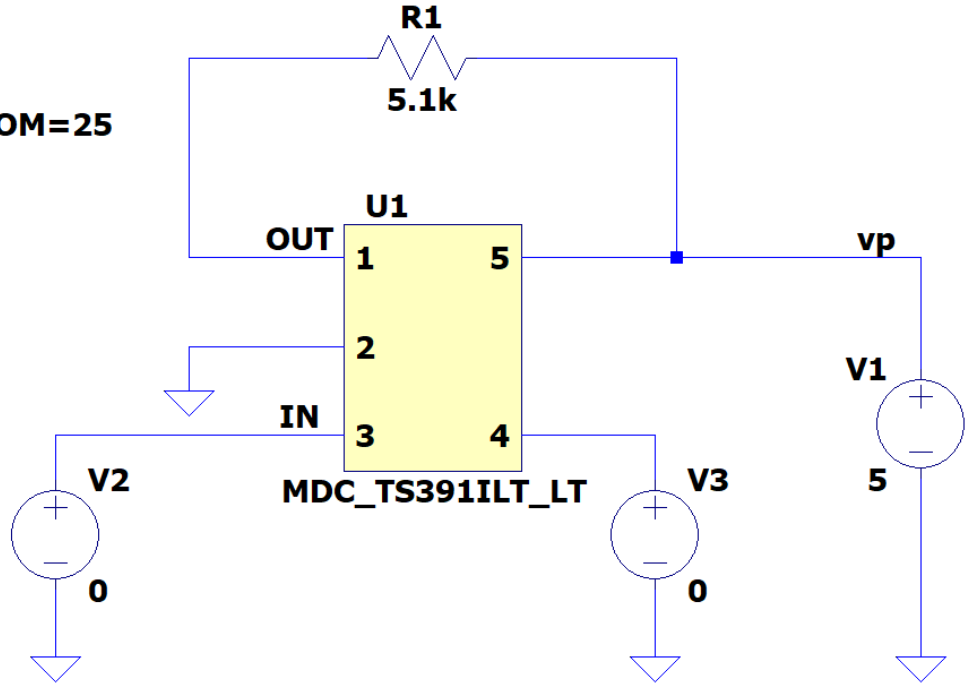
Simulation results are following.  
Explanatory notes — : simulated

**Input Offset Voltage**



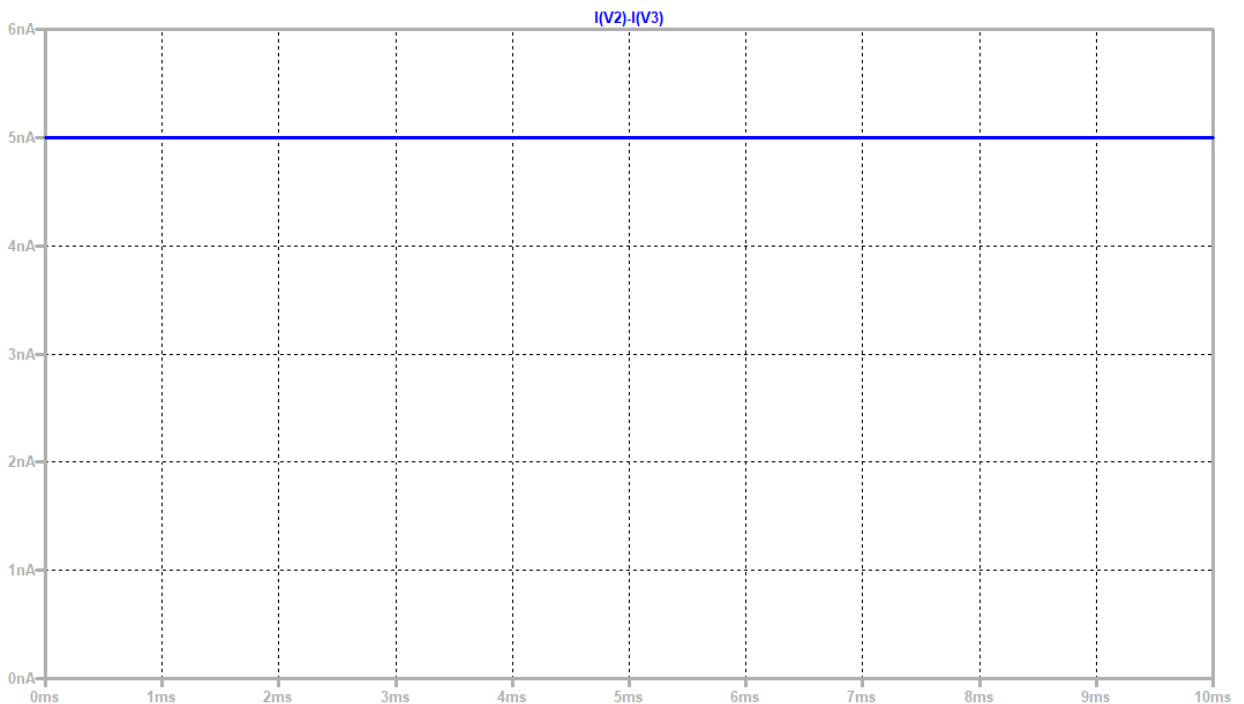
**Input Offset Current Testbench**  
**Referred to Data Sheet**

```
.OPTION TNOM=25
.TEMP 25
.tran 10m
```



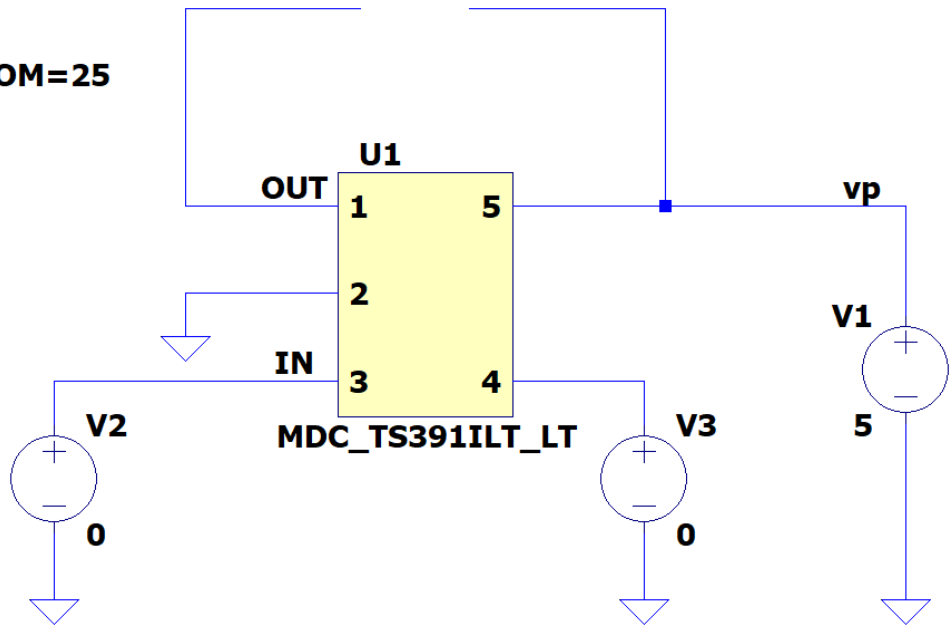
Simulation results are following.  
 Explanatory notes — : simulated

**Input Offset Current**



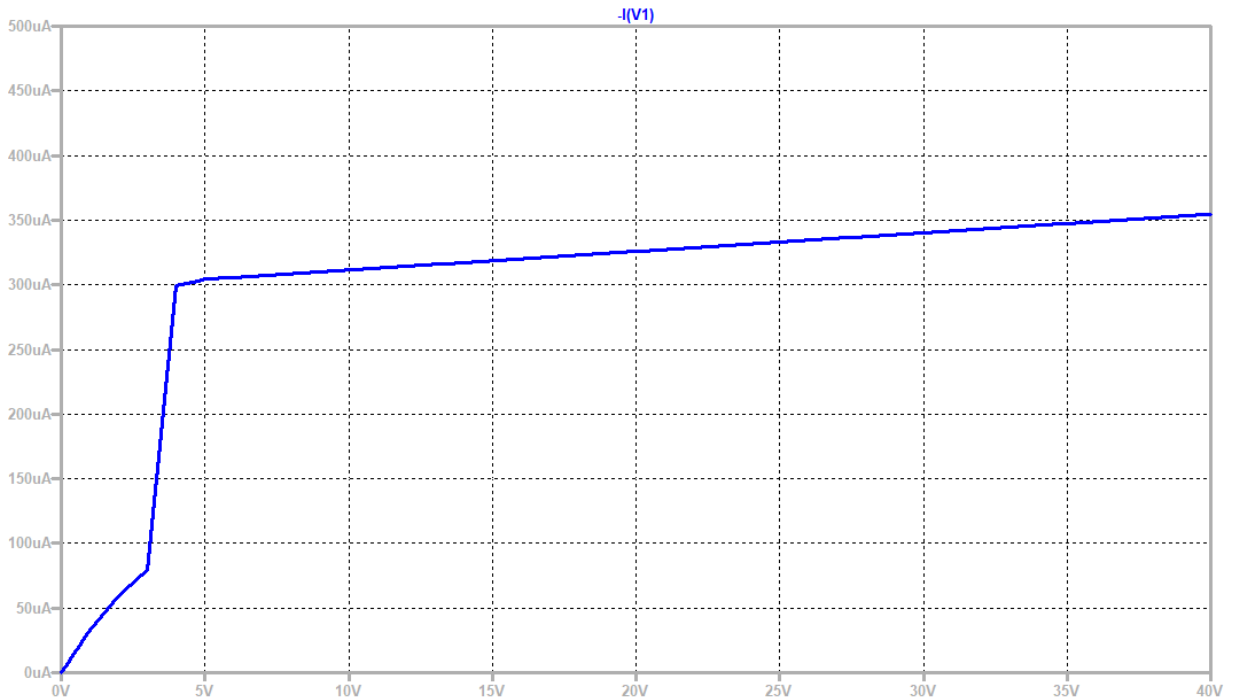
Supply Current Testbench  
Referred to Data Sheet

```
.OPTION TNOM=25  
.TEMP 25  
.dc V1 0 40 1
```



Simulation results are following.  
Explanatory notes — : simulated

Supply Current

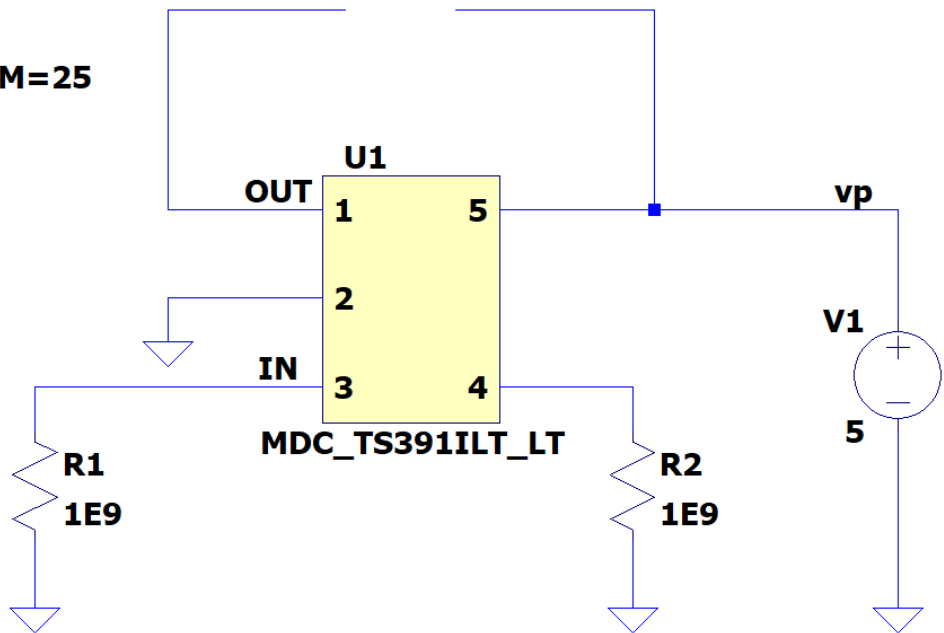


**Input Current Testbench**

Referred to Data Sheet

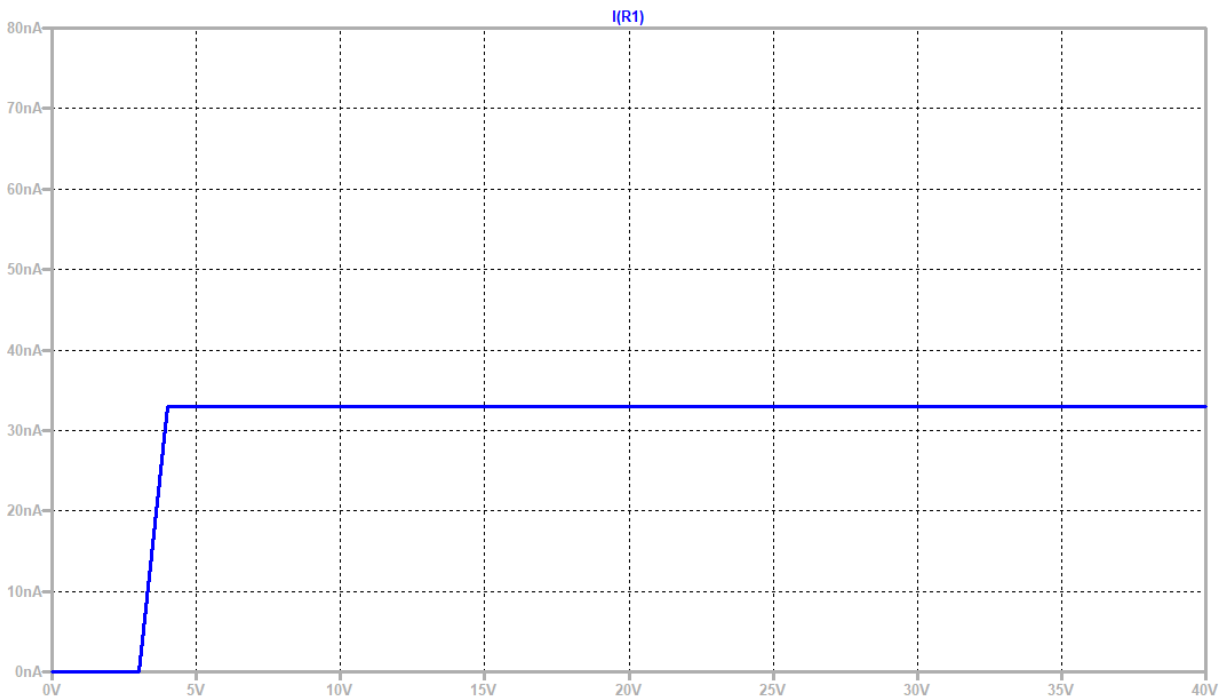
```
.OPTION TNOM=25
.TEMP 25
```

```
.dc V1 0 40 1
```

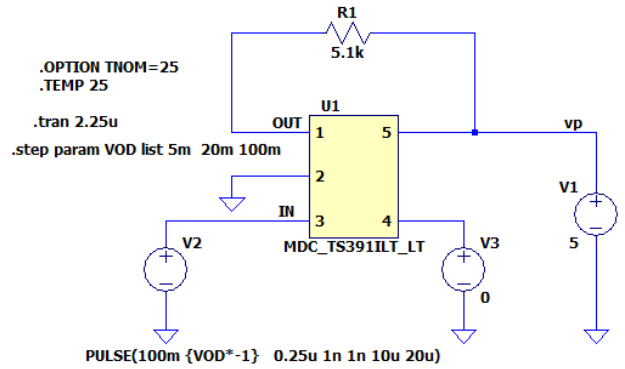
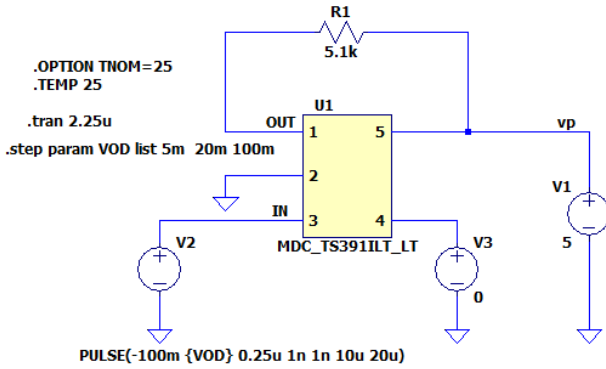


Simulation results are following.  
Explanatory notes — : simulated

**Input Current**

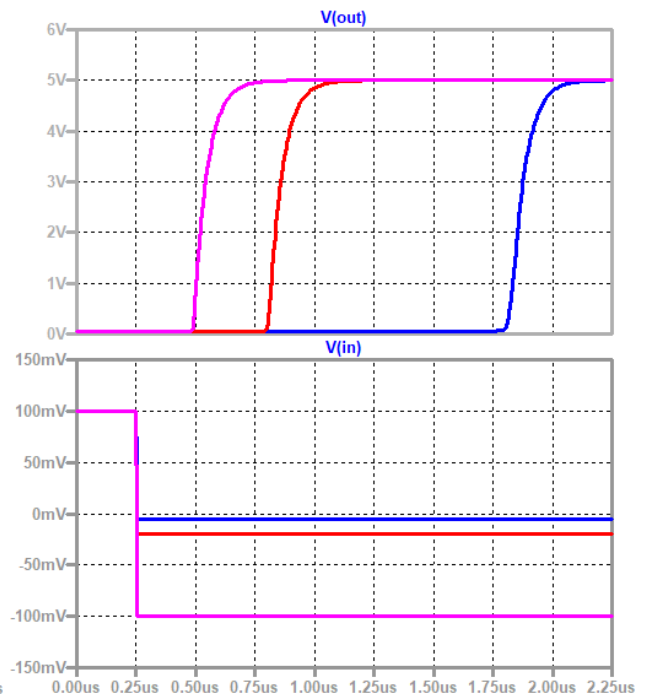
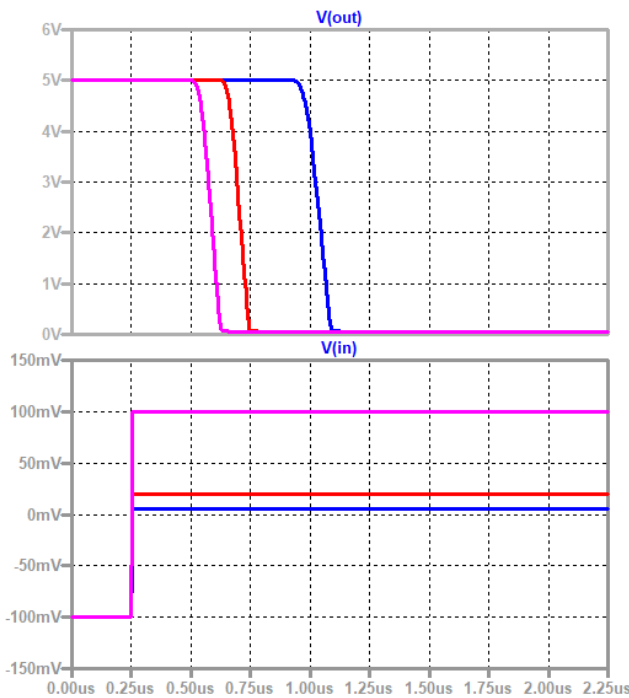


Propagation delay Testbench  
 Referred to Data Sheet



Simulation results are following.  
 Explanatory notes — : simulated

Propagation delay



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