

LTspice Model

Dual Comparator

Toshiba

TC75W58FK

Model Information

Model A macro model
Call Name MDC_TC75W58FK_LT
Pin Assign 1:OUT1 2:IN1- 3:IN1- 4:VSS 5:IN+2 6:IN-2 7:OUT2 8:VDD
File List Model Library MDC_TC75W58FK_LT01.lib
 Model Report MDC_TC75W58FK_LT.pdf(this file)
Verified Simulator Version LTspice XVII
Note

References

The information which was used for modeling is as follow:

[Data Sheet]

- Date/Version 2014-03-01
- Product name TC75W58FK
- Company name Toshiba

[Characteristics listed]

- Characteristics VIO,IIO,IDD,Isink,Ileak,VOL
tpHL,tTHL

Simulation Condition

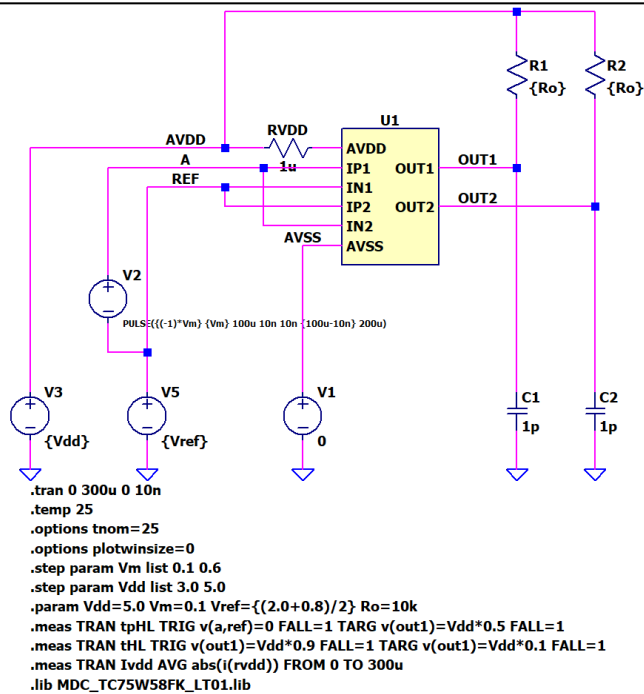
This table shows the range of evaluated simulation range that was not occurs any convergence problems in this area.

Item	Min	Typ	Max	Unit
Temperature		25		deg C
VDD	1.8		7.0	V

Model Functions Table

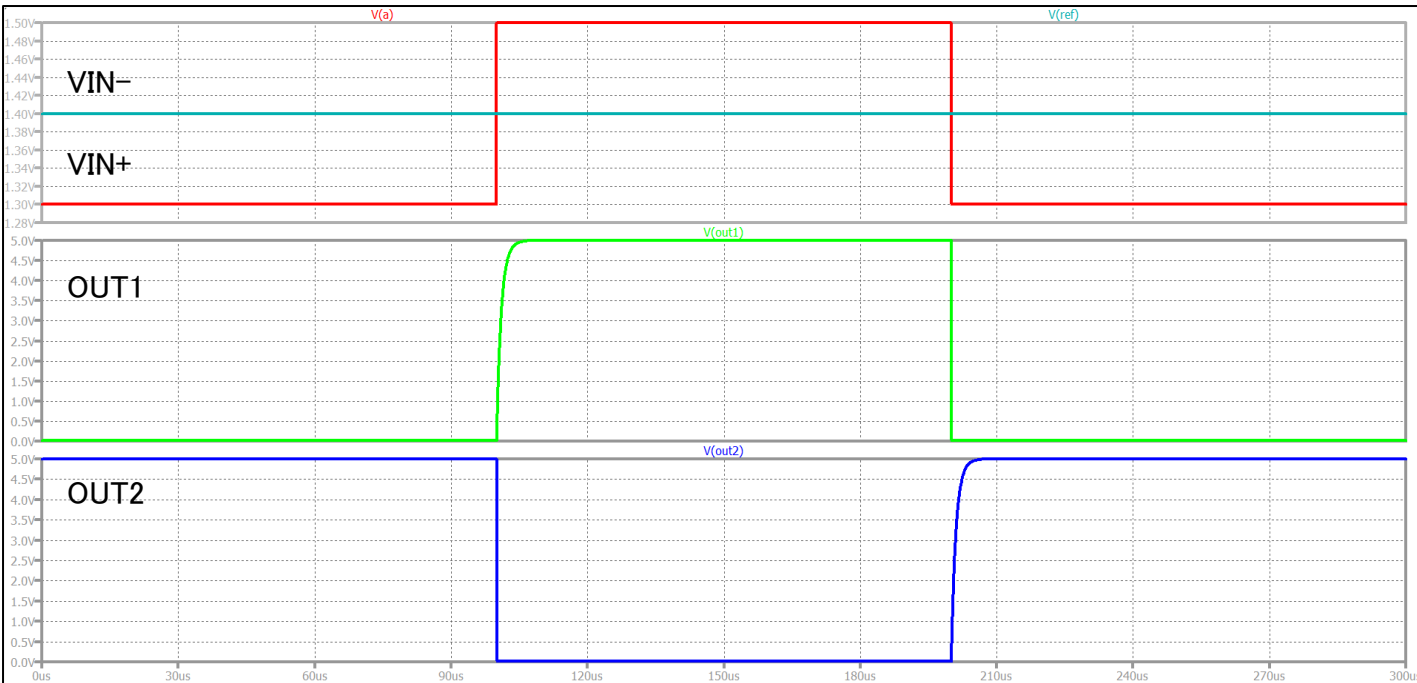
Functions	Implemented
Low supply current: $I_{DD} = 20\mu\text{A}$ (typ.)	○
Single power supply operation	○
Wide common mode input voltage range: V_{SS} to $V_{DD}-0.9\text{V}$	○
Open drain output circuit	○
Low input bias current	○

Testbench for transient characteristics (Vdd=5.0[V] Vss=0.0[V] Vin=+/-100[mV] Rload=10[kohm])
 Referred to Data Sheet

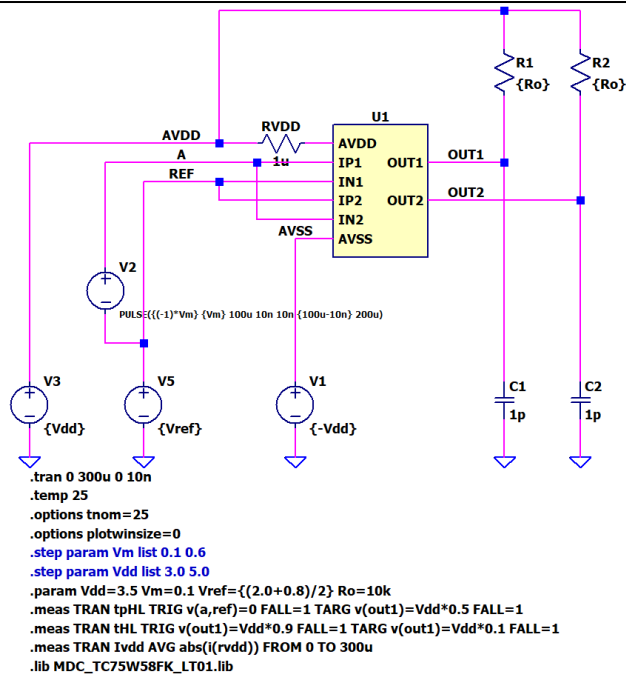


Simulation results are following.
Explanatory notes — : simulated

transient characteristics (Vdd=5.0[V] Vss=0.0[V] Vin=+/-100[mV] Rload=10[kohm])

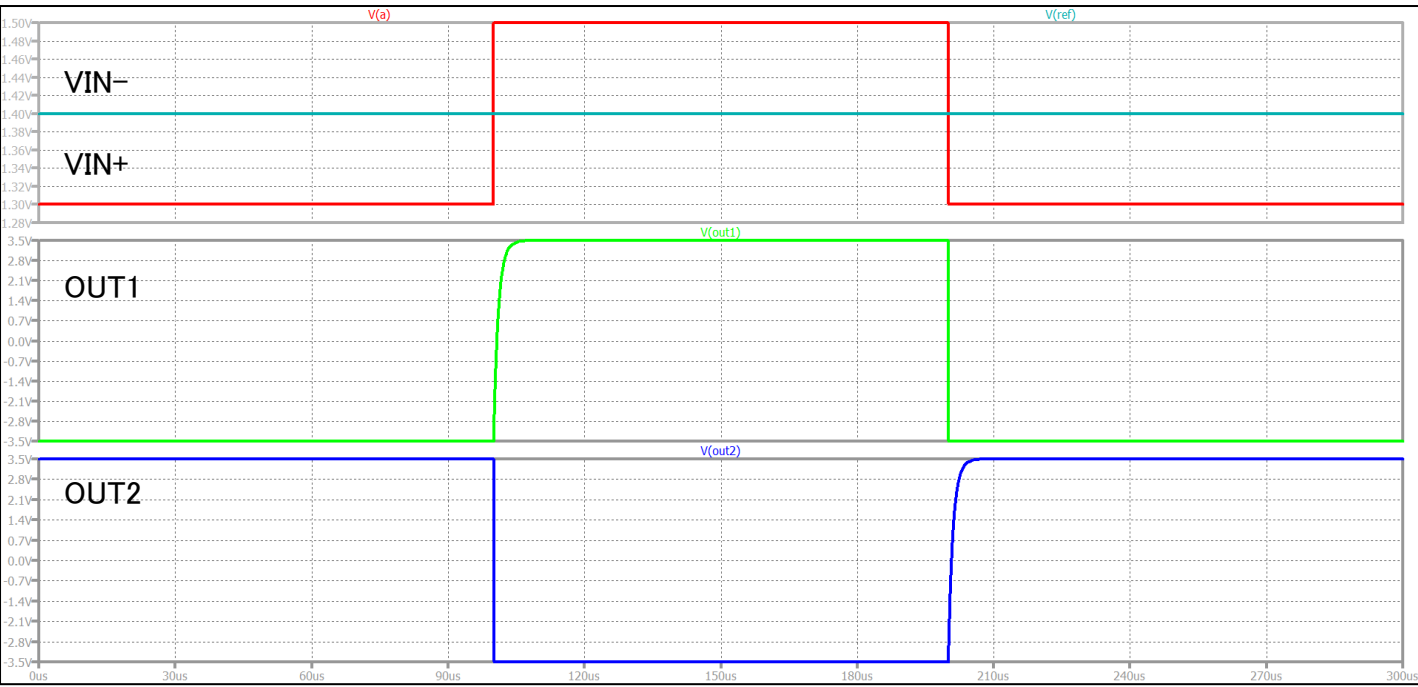


Testbench for transient characteristics (Vdd=3.5[V] Vss=-3.5[V] Vin=+/-100[mV] Rload=10[kohm])
 Referred to Data Sheet



Simulation results are following.
Explanatory notes — : simulated

transient characteristics (Vdd=3.5[V] Vss=-3.5[V] Vin=+/-100[mV] Rload=10[kohm])



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