

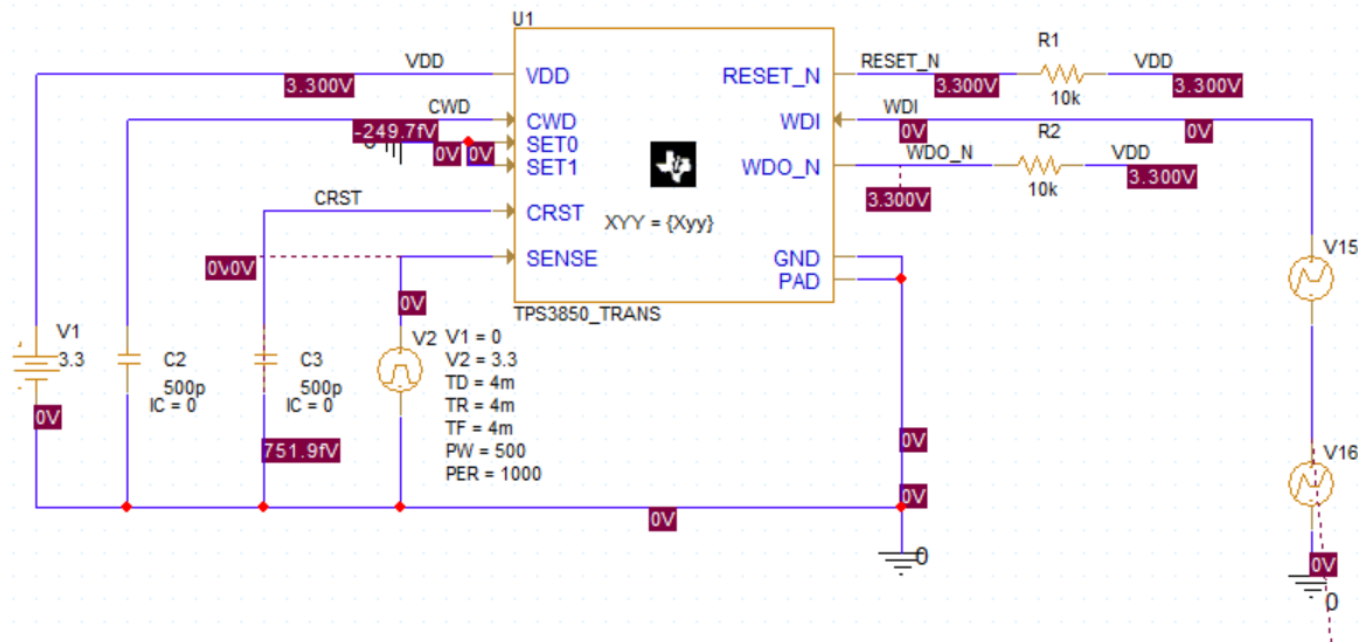
TPS3850 WDO Latch Simulation

2025/03/25

TPS3850 Normal Operation

PARAMETERS:

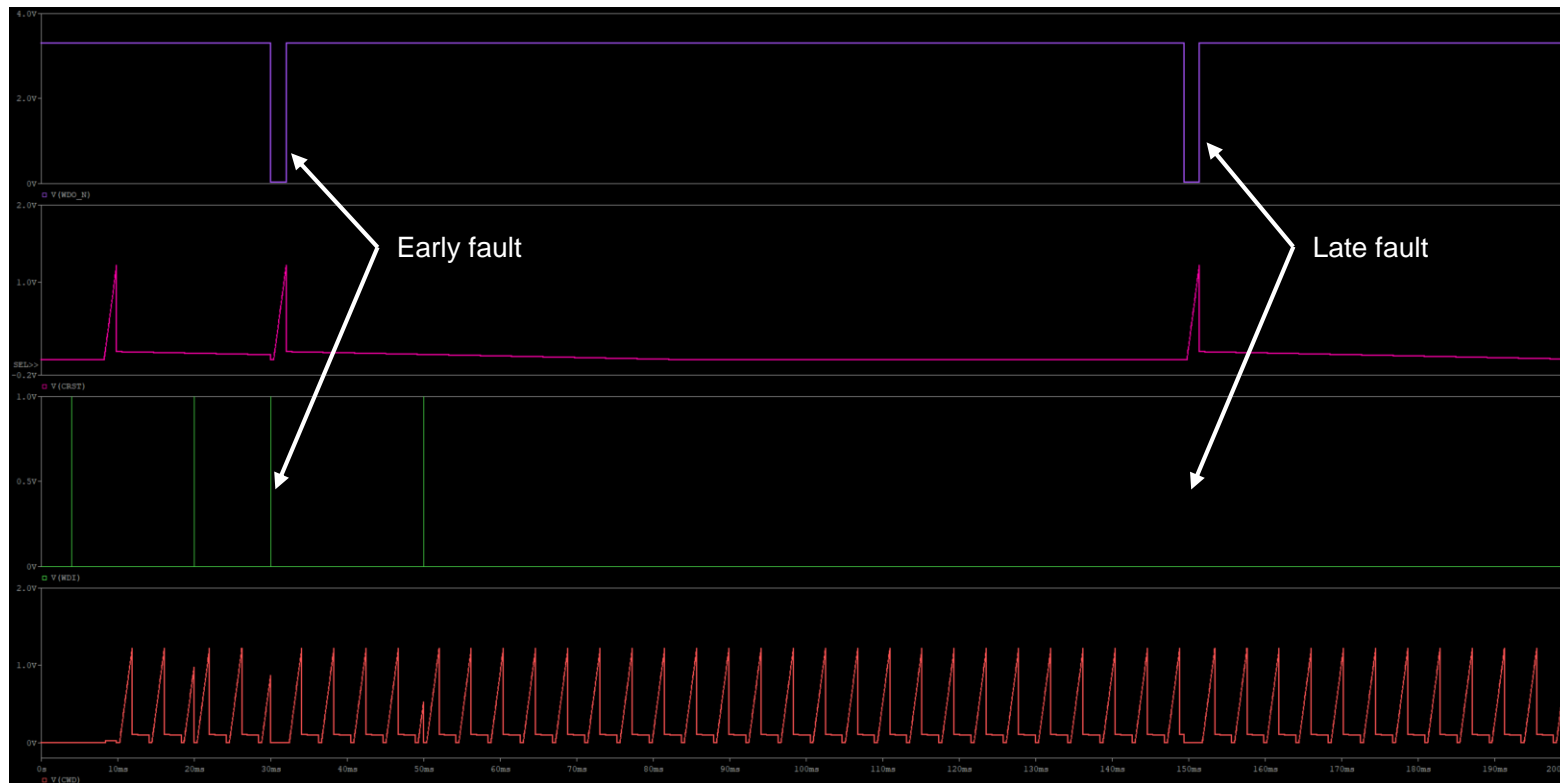
Xyy = 033



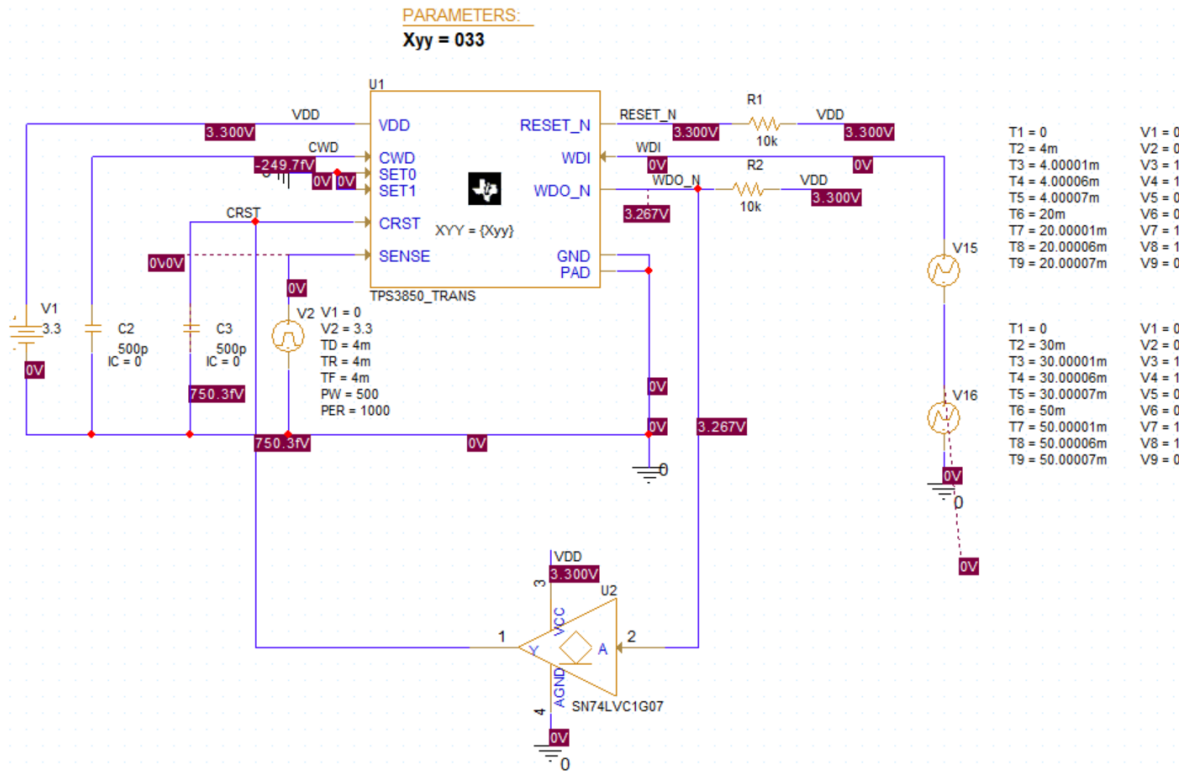
T1 = 0	V1 = 0
T2 = 4m	V2 = 0
T3 = 4.00001m	V3 = 1
T4 = 4.00006m	V4 = 1
T5 = 4.00007m	V5 = 0
T6 = 20m	V6 = 0
T7 = 20.00001m	V7 = 1
T8 = 20.00006m	V8 = 1
T9 = 20.00007m	V9 = 0

T1 = 0	V1 = 0
T2 = 30m	V2 = 0
T3 = 30.00001m	V3 = 1
T4 = 30.00006m	V4 = 1
T5 = 30.00007m	V5 = 0
T6 = 50m	V6 = 0
T7 = 50.00001m	V7 = 1
T8 = 50.00006m	V8 = 1
T9 = 50.00007m	V9 = 0

TPS3850 Normal Operation



TPS3850 + Open Drain Buffer (SN74LVC1G07)



TPS3850

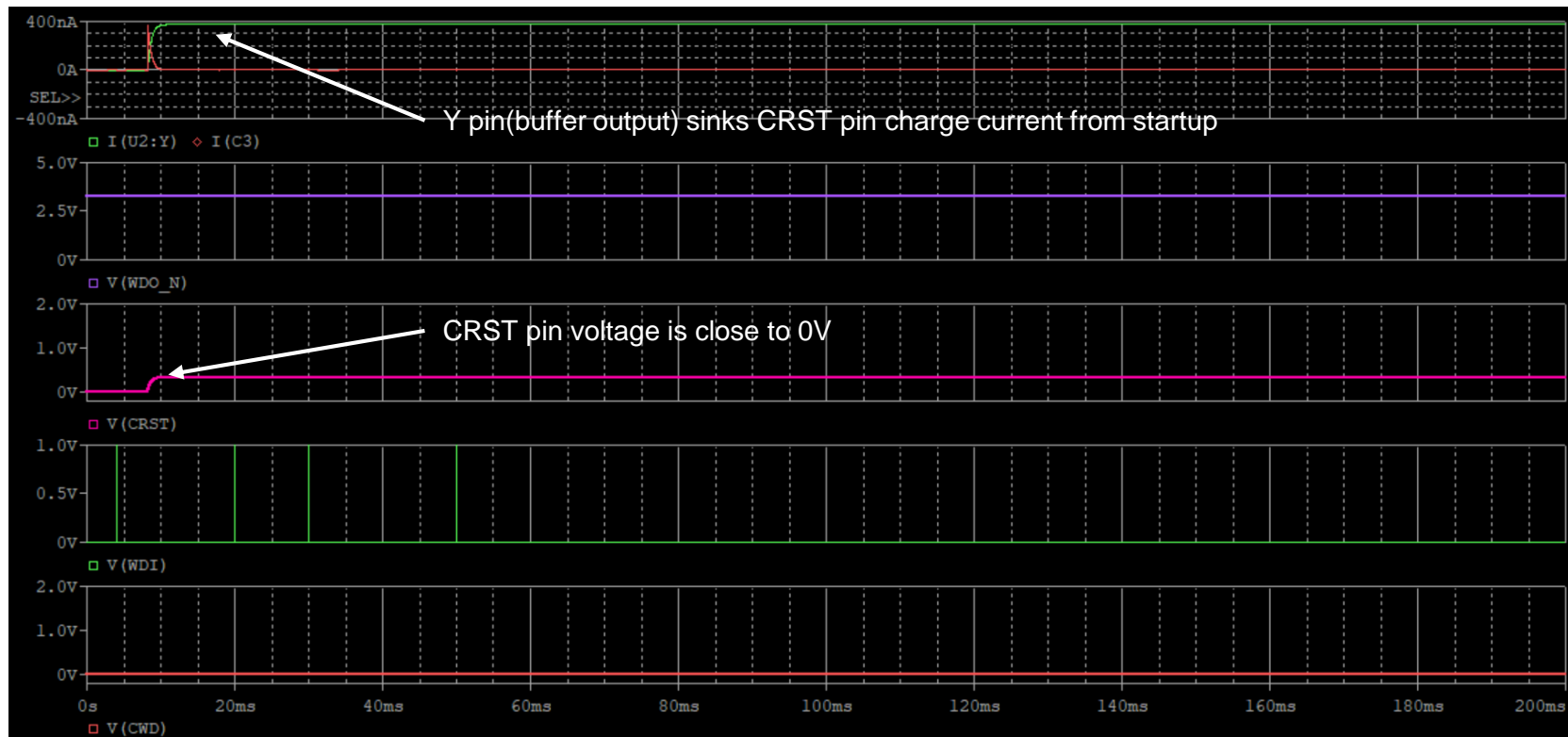
I_{CRST}	CRST pin charge current	CRST = 0.5 V	347	375	403	nA
------------	-------------------------	--------------	-----	-----	-----	----

SN74LVC1G07: Open drain buffer

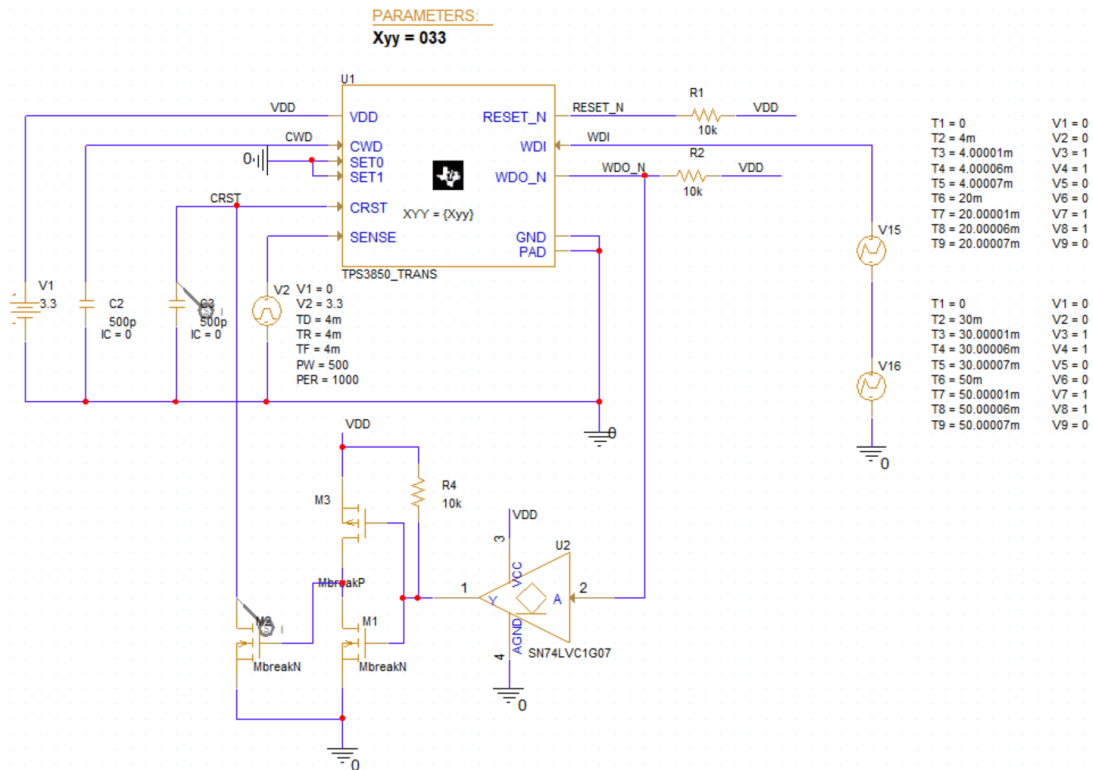
I_{off}	V_I or $V_O = 5.5$ V	0	± 10	± 10	μA
-----------	------------------------	---	----------	----------	---------

Open drain buffer might sink CRST pin charge current
=> Prevent correct operation

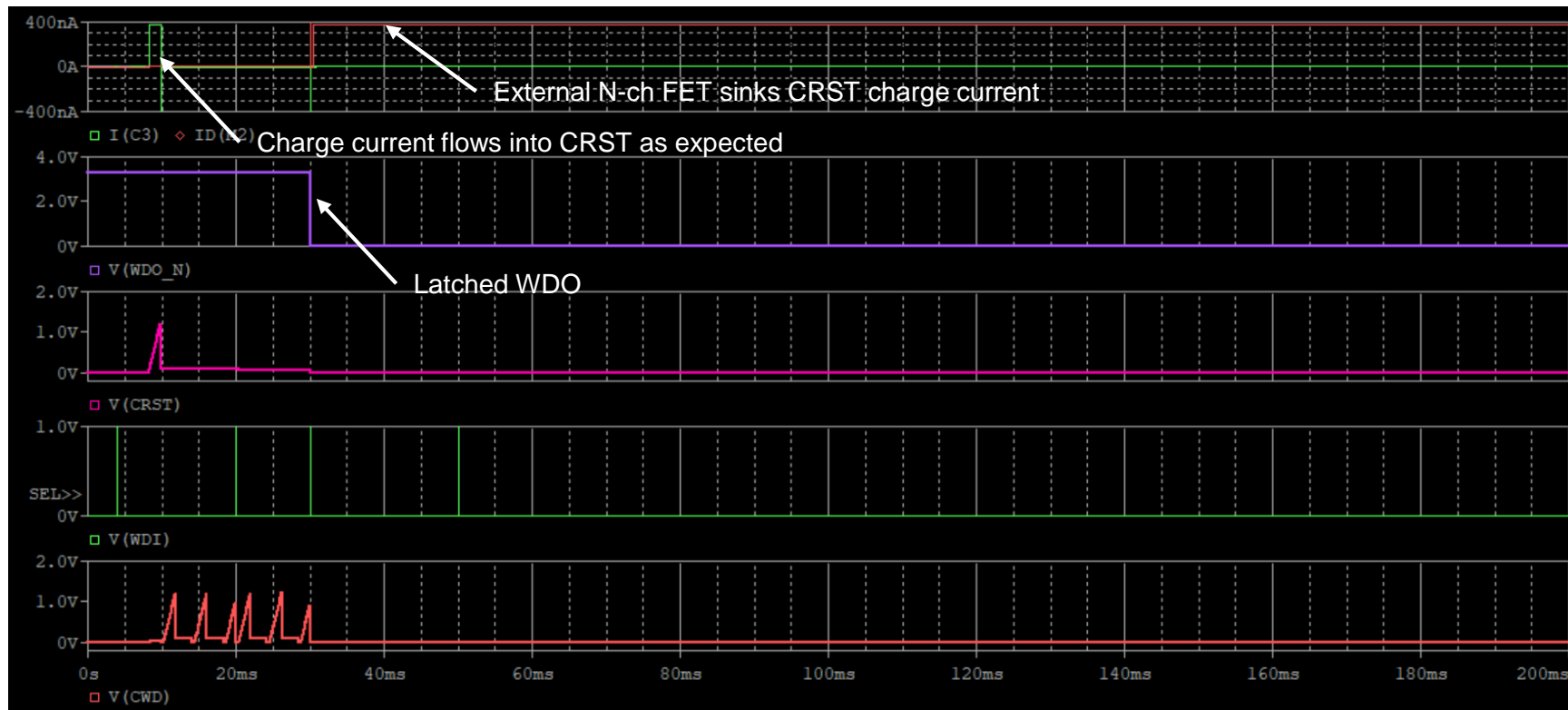
TPS3850 + Open Drain Buffer (SN74LVC1G07)



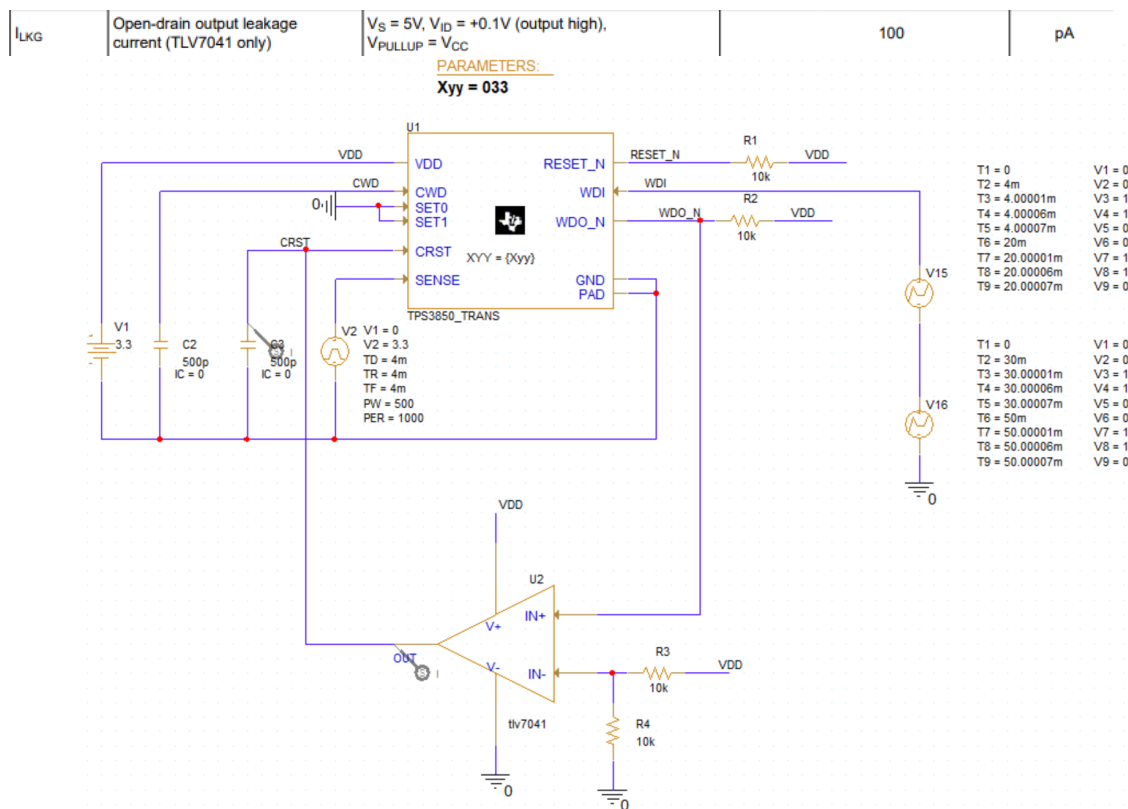
TPS3850 + SN74LVC1G07 + Nch FET



TPS3850 + SN74LVC1G07 + Nch FET



TPS3850 + TLV7041(low leakage comparator)



TPS3850 + TLV7041(low leakage comparator)

